



COOPER UNION

THE CABLE

1937

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FRANK K. KELEMEN
EDITOR-IN-CHIEF



THE 1937 CABLE

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COOPER UNION

THE 1937 CABLE IS RESPECT-
DEDICATION FULLY DEDICATED TO ALL
THAT COMPRISES THE COOPER
UNION; THOSE WHO ARE RE-
SPONSIBLE FOR ITS EXIST-
ENCE; THOSE GIVING THEIR
SERVICES IN ITS VARIOUS DE-
PARTMENTS; THE MEMBERS OF
ITS FACULTY; THE EVER IN-
CREASING ALUMNI; AND, LAST-
LY, THE STUDENTS NOW RE-
CEIVING ITS BENEFITS.



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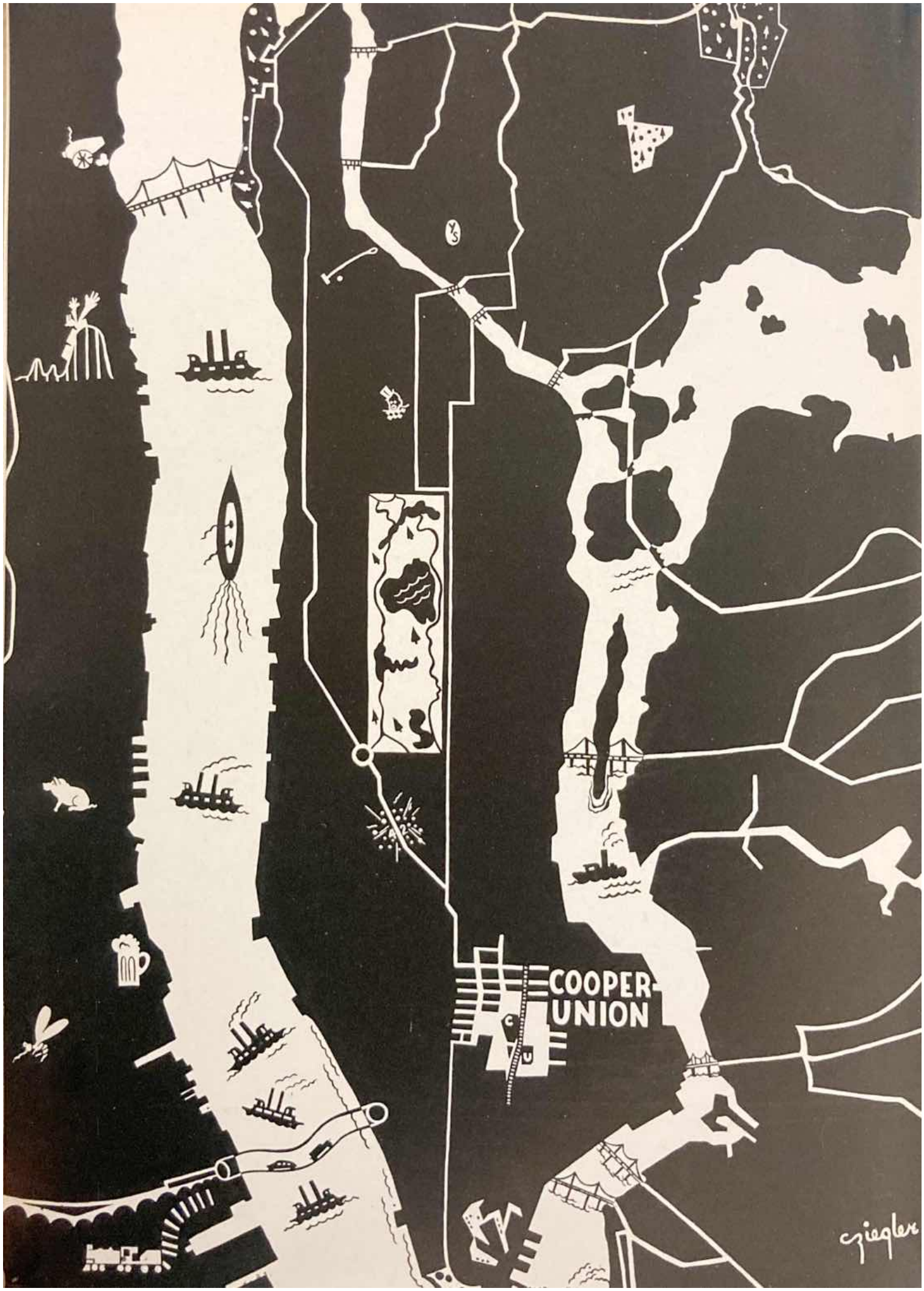
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COOPER UNION



COOPER
UNION

ziegler

ENVIRONS

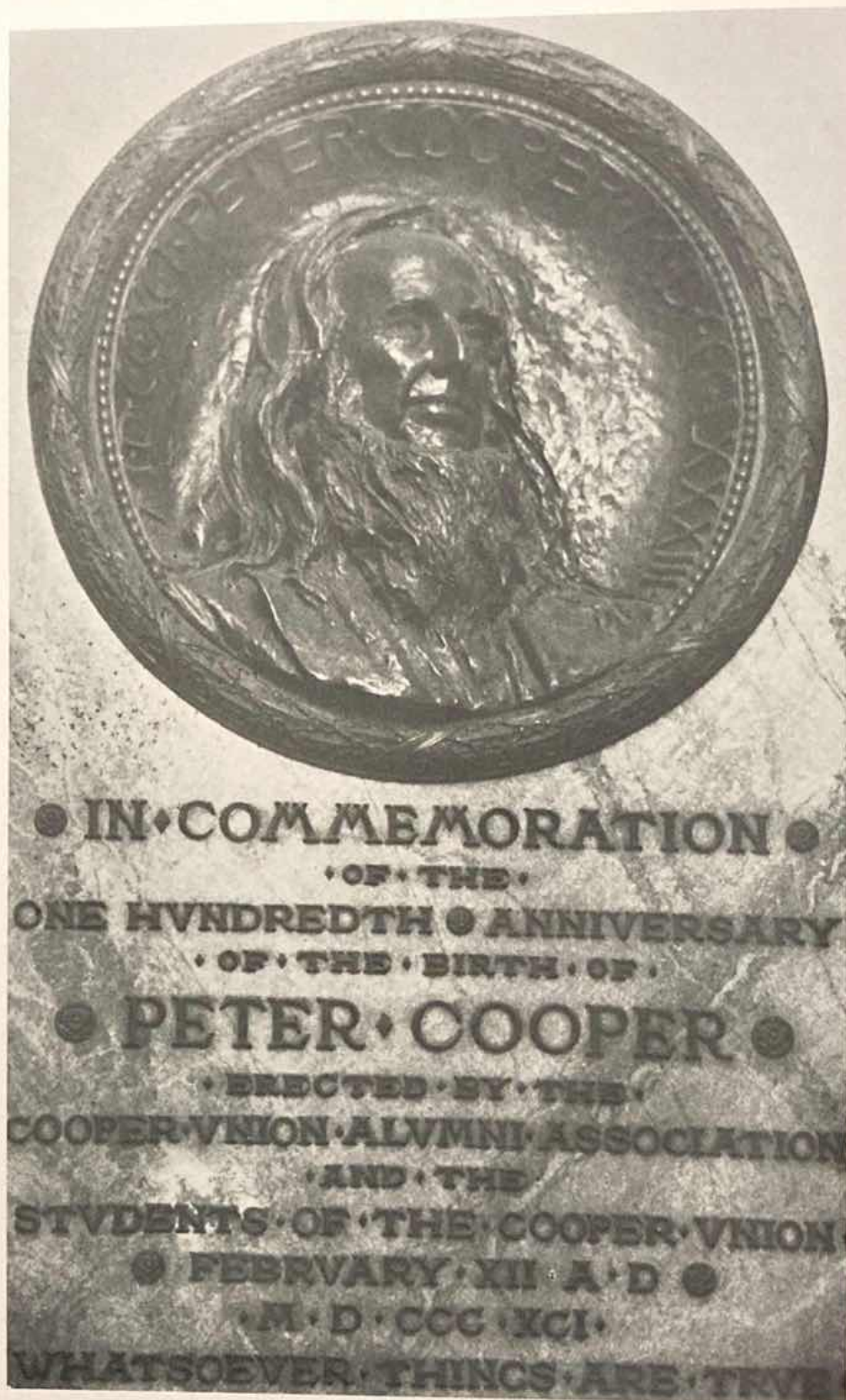
IF by any chance you should develop a sudden curiosity about the bedraggled denizens of New York City's Bowery and go to one and brazenly ask "Where do you go when you want to keep warm?" you would receive the same answer as you would of a young man whose residence is in New Jersey, an engineering student—if you asked him "Where do you go to study engineering?" Or if you came upon an engaging young lady in the 14th Street Subway Station, busily trying to hold a drawing board and a mysterious tin box, merely to strike up a conversation inquired: "Where do you go to gain knowledge and skill in the fine arts?" her answer, too, would be the same (unless the lady dropped her encumbrances and vigorously replied with the palm of her hand).

Located as it is at the beginning of that street of forgotten men, the Bowery, Cooper Union cannot help but be infested by their ilk. Situated as it is in the largest city in the world, Cooper Union cannot escape the young lads whose desire for a knowledge of engineering greatly outstrips their ability to assimilate said knowledge; or the lads and lassies who would want nothing more than to be permitted to dab at an innocent piece of canvass all day long—with a brush bearing upon it such a motley variety of hues that Sargent's corpse violently twitches in its earthly berth at every encounter of brush and palette.

Looking about him to the West the Cooper Union student can see one of the oldest mercantile establishments in the city, and further west the home of many graduates of the Art school—Greenwich Village.

To the East lies Second Avenue with its myriad bright lights and cafés. Further east lies the odoriferous river. To the North the Evening Students can see the brilliantly illuminated building of the utility company that supplies the source of the city's illumination. The day student, on a clear day, can see the distant Empire State Building, its pinnacle wreathed in cumulus clouds.

To the South lies the Financial District where the country's wealth exchanges hands daily. Very far to the South—further than even an Engineering Student can see—lies the Statue of Liberty, symbolic of our freedom, and also symbolic of Cooper Union where pauper and millionaire alike are allowed to enter and partake of the knowledge of the ages.



TABLET LOCATED IN
FOUNDATION BUILDING

BACKGROUND

OVER three-quarters of a century has passed since the venerable Peter Cooper walked through the halls of Cooper Union, amiably chatting with the students, discussing their problems, and lending them his wealth of experience.

"Mankind, both young and old, requires to know the truth in order to be made free by it from the dangers of ignorance and those errors that have cursed the world with wars, poverty, wretchedness and ruin in all the ages that have passed."

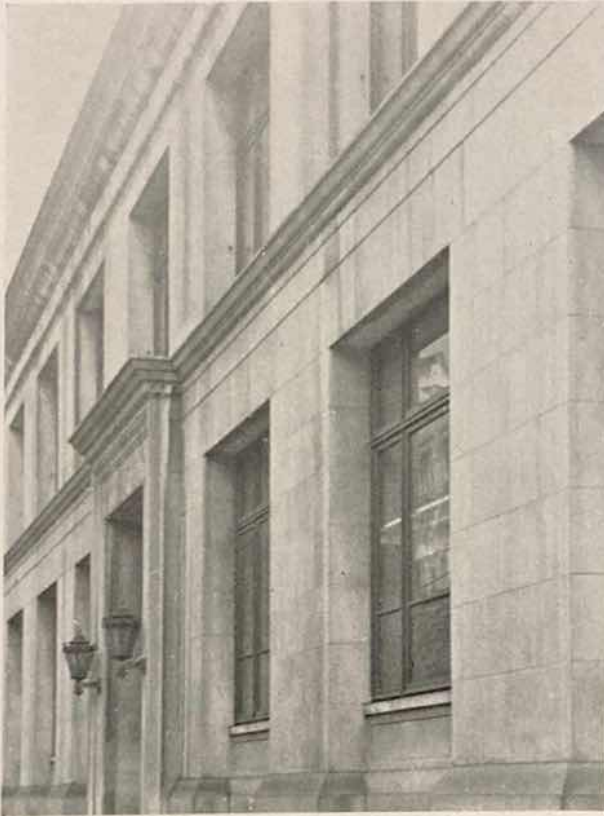
This quotation expresses very succinctly the ideal of Peter Cooper and his aim in founding the Cooper Union; to educate his fellow human beings so that they would not, in their ignorance, allow these errors to curse the world. To expedite the attainment of this ideal, Cooper Union was created, and this has always remained its fundamental objective. If the volume of homework assignments is any measure of how well the present administration is adhering to the founder's ideal, then any Cooper Union student can attest to the world that he is enlightened and absolutely safe from the pitfalls of ignorance. The beauty of Art and the logic of Science have been impressed upon the students so that through them they shall be free from the cursed ignorance which Peter Cooper deplored.

Cooper Union was established in 1859 as the pioneer free educational institution in New York City. At the outset, stores and offices were rented in the lower part of the building to provide an income that would help to defray the expenses of the school. Some of the earlier courses given were Applied Science, Debate and Oratory, and a course for "respectable females" in design. A Free Library and Reading Room was established and free lectures were given in the Great Hall on topics of the day.

As time passed, the courses and building changed, but the traditions continued unchanged. Large endowments left by Peter Cooper, his son-in-law Abram S. Hewitt and other famous men of the time made it possible to discontinue the renting of the stores and

The artist finds a unique design in Cooper Union's ancient, but nevertheless, reliable fire-escapes.





With the winning of the tax suit against the City of New York, it may soon be financially possible to complete the Hewitt Building.

offices and to use the room thus made available for classrooms. Even then, still more people had to be turned away because of lack of space.

Science progressed by leaps and bounds during the late 19th and early 20th centuries and the curriculum was revised to meet the new fields of learning. Among the new courses inaugurated as a result were Telegraphy, Typing, and Stenography for women. In this period, industry began absorbing all the technically trained men it could find and, as a result, the Applied Science courses were crowded with students eager to learn.

To meet this greatly increased demand for education, another building was erected with all the modern apparatus necessary to equip the students for the stringent technical requirements brought

about by the change in the industrial picture. This new building, the Hewitt Building, was dedicated to Abram S. Hewitt, life-long friend and business partner of Peter Cooper.

The fiftieth anniversary of the school arrived, and Cooper Union was still progressing. The Cooper Medal, struck in honor of this event by Peter Cooper's daughter, was made the official emblem and seal of the school. Graduates of the Science Schools were granted replicas of this medal, bearing a likeness of Peter Cooper, so that the features of their benefactor might become familiar to them. This custom has been carried out down to the present time, the recipients of the Medal being the graduates of the Institute of Technology and Night School of Engineering.

The progress of Science continued, and the Science Courses were altered accordingly. A graduate course in Chemistry was formed to meet the current interest in that subject. But still more and more knowledge was being gleaned by scientists. New discoveries opened up many fields of investigation. During this period, the courses in Telegraphy and Typing were dropped from the

curriculum and our modern Architecture classes were added.

It was at this time that the Engineering profession began its remarkable growth which hasn't abated since. Men were applying this new science to industry in the same manner that Peter Cooper had applied the science of his day in the development of his steel business.

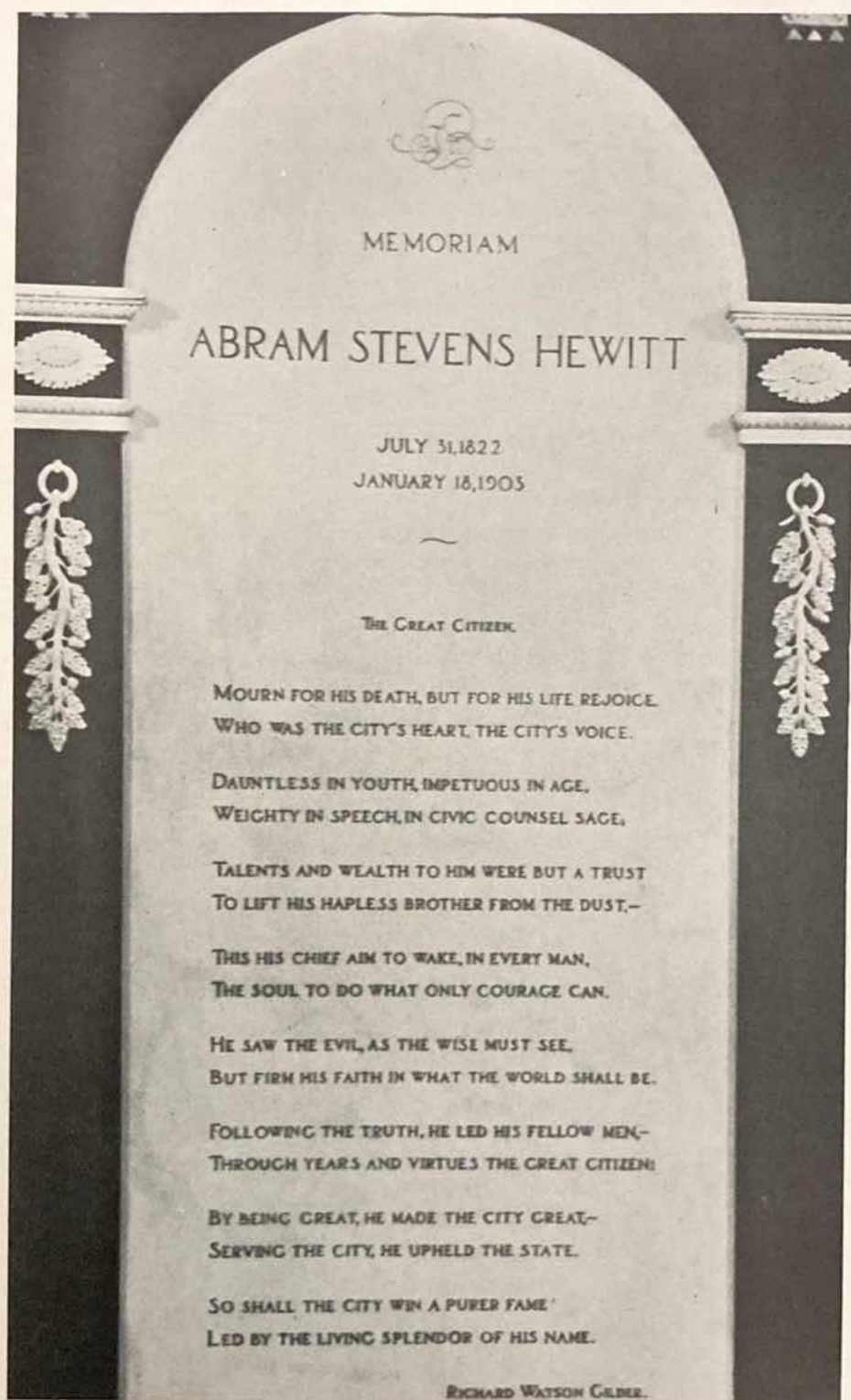
Thus it was entirely proper and fitting that men should be trained for this new profession at Cooper Union. The need for specialization being apparent, the General Science courses were subdivided into studies of the various fields of Engineering.

These new classes were extremely popular at their inception, as they are today. Entrance examinations and physical examinations were required of all those desirous of entering the school to insure their being mentally and physically fit to embark on what is generally conceded to be one of the most strenuous courses offered by any educational institution. This procedure also limited the number of students to conform to the not over-adequate facilities available.

Thus Cooper Union developed into the organization it is today. But all through these changes the Reading Room, the Free Lectures and the Museum remained untouched and unchanged just as Peter Cooper had planned them. Here the task of imparting knowledge, not only to students of Cooper Union, but to everyone who had the desire for such knowledge continued unabated. Three or four times each week the Great Hall is opened to the public. Under the guidance of competent leaders, the forum group discusses current problems. These topics are viewed from all angles with ample opportunity for each person to voice an opinion. Likewise, the material in the free reading room covers a wide range. Through war and depression, the very things that Peter Cooper's principles would prevent, the wise philosopher's theories persisted. Today, Cooper Union, a changed institution externally, carries on these same traditions deep in its heart. It carries Peter Cooper's message to the world. With its insistent beat, it says over and over, "Mankind, learn the truth. Mankind, become free from the dangers of ignorance. Come to me and learn the truth."

A typical before-class gathering tussling over the problem in front of the Hewitt Building.





TABLET LOCATED IN
THE HEWITT BUILDING

THE FOUNDERS

THE Cooper Union was founded on the coincidental association of two of the most far-seeing, philanthropic men who have ever taken part in shaping the destiny of this city. With their early struggles clearly marked in their minds and characters these two set about the creation of an institution whereby the youth of the future would be enabled to secure aid in overcoming the obstacles in the path towards success.

Peter Cooper's love of wisdom, idealism, and sympathy for the working man and Abram S. Hewitt's business sense and scholarly traits were combined in the conception and creation of Cooper Union. Good natured and liberal, sympathetic to the working man's problems although he himself was far from being a poor man, Peter Cooper had earned the reputation that he could make any man his friend merely by talking to him. Poorly educated, Cooper gained his knowledge through bitter experience and self-instruction and applied it to excellent avail. Peter Cooper was a great idealist as well as a clever business man and he sustained all throughout his life the ideal of creating a school for the education of the working man.

Abram S. Hewitt, friend, son-in-law, and general advisor of Peter Cooper was his exact antithesis. This was perhaps one of the reasons for their enduring friendship. A shrewd business man and an outstanding scholar, Hewitt was the perfect supplement to Peter Cooper's friendly personality. Being the son of a poor family, Hewitt resolved to succeed early in life in order that his parents might not have to continue to endure the hardships caused by their poverty. He supported himself through school and won a scholarship to Columbia College where his industry and determination soon won him great honors. Upon his graduation from Columbia, Hewitt took a position in the factory of Peter Cooper. He soon impressed his associates with his shrewd, native business ability, and in a short time was Peter Cooper's chief advisor, and soon later, his son-in-law.

Peter Cooper's great inventive genius and organizing ability and Abram Hewitt's natural business sense were combined in the founding of the Cooper Union. This Institution has advanced along the lines laid down by these two great men until today its reputation is known the world over. In devoting themselves to the cause of their fellow-man, the founders of the Cooper Union created a monument which will perpetuate their memory for all time.



THE LIBRARY

J. H. Moriarity

M. Hausamann

C. M. Moore

M. Smith

W. Wallenta

A. Fondak

A. Vitetti

M. Feerick

Mr. J. H. Moriarity, librarian since September last, has introduced many new ideas since then.

NOT least among the departments at Cooper Union is the Students' Library. Its appeal is many-sided, for here can be found opportunity for relaxation as well as for more serious pursuits. The room is divided into two sections, and is located on the Third Floor of the Foundation Building.

Entering the study hall at the left, the eye is immediately caught by the array of paintings which enhances the walls, notably a striking characterization of Columbus. One may also see the students (we almost said inmates), likewise arrayed, but in somewhat less heroic postures. That Sophomore over there in the corner, for instance, is probably fretting over some Calculus problem. Ah, see, he raises his head, looking, perhaps, for assistance. Doubtless he found none, for his nose is now back in the book.

The room is rather quiet now, but it is not always so. During the busy hours before classes, the librarians are busily occupied shushing obstreperous students overcome with the brilliance of some demonstration for the benefit of their colleagues. At these

times, it is usually difficult if not impossible for the perennial dozers to make up their beauty sleep.

In an Engineering School, more than elsewhere, the Library is more than a reading room, it is a place to work. The curricula are of such a type that the students cannot provide themselves with even a fraction of the reading material required. To quote Mr. Moriarity, our Librarian, "We try to have the information here before you need it." The students, Tech and Art alike, make this no small assignment by the swarm of information they request. Precisely, and with a minimum of effort, these demands are met by the staff, whose competence is daily tested and seldom found wanting. For instance, we think the Frosh who wanted help in computing a ten-place log table a bit unreasonable. The question, "What is an Erdman's Float?" kept the staff on its collective toes for a while, but they finally found the answer. (No, it's not a diving raft!)

It may be said without exaggeration that without the Library, the School could not remain open a day. Apparently, the desirability of this condition is well agreed upon, for there haven't been any attempted arsons — yet.

Some do it in class. The Professors like this much better. It's more comfortable too.



Recognizing that the Library is more than a mere collection of books, but a valuable tool of research, Mr. Moriarity has striven to increase the usefulness of the department. A series of lectures has provided the students with a technique for using libraries, especially in other communities. In addition, the results of a considerable study on the search for employment has been a great help to some of the undergrads and alumni.

We mentioned that the Library has its lighter aspects, and these are to be found chiefly in the reading room at the right. Soft leather chairs and pleasant surroundings invite the weary. Lining the shelves are books calculated to distract the mind from abstruse engineering problems, helping to supply a knowledge of the humanities essential to a culturally balanced life. Prominent among the titles are works on social philosophy, history, art, and economics, not to forget that



Miss Margaret Hausmann has made the student's library an efficient and smooth running organization.

social necessity of all social necessities, Contract Bridge. Fiction is also well-represented by a hand-picked collection of popular authors. Some of the lighter periodicals, notably a certain magazine for men, show their popularity by their weather-beaten appearance soon after the date of publication.

One of the pleasantest features of the reading room is that here there is no restriction on noise—within limits, of course. Consequently it is an oft-frequented rendezvous—the scene of varied activities such as solving the world's problems or just plain rag-chewing. The fire-place at the far end removes the last trace of formality. Pictures by WPA photographers furnish interesting views of how the other half lives—both man and beast.

The reading room is also a haven for the Art Students, who usually skirt carefully the study room with its dry scientific tomes. They have been known to inveigle an unwitting Tech man into some esoteric discussion. The latter had no recourse but to flee to the Critical Tables.

Taken as a whole, the Students' Library furnishes some excellent lessons in cooperation. Many students can be seen there almost daily, working together on their assignments. These men have learned that two or more heads are better than one, a good maxim for any undertaking.

The faculty compares notes on the universal ignorance of students and gets wholesome recreation out of it. In the same way the harassed students find a haven in the Lounge where with perfect joie de vivre they rip into any and every instructor.



The Lounge where studious hours are spent with technical books and free moments with classical and modern literature.

THE MUSEUM

Miss Mary Gibson

Mr. Calvin Hathaway

Miss Mary Noon

Mr. Mortimer Davenport

Mrs. Angiolina Scheuermann

Mrs. Jean Reed

Mr. Thomas Gibson



THE Museum for the Arts of Decoration was inaugurated at Cooper Union in 1895. Its main purpose was to familiarize American artists and designers with the better forms of French Decorative Art and also to make it possible for them to work from the actual objects and models not usually available to the public.

Many Cooper students have never heard of this useful establishment which is so close to home. The Museum can be likened to a little secluded sanctuary which carries on its work from day to day, blissfully unaffected by the turmoil of its more vulgar surroundings. There is a great deal of secrecy about it. The inquisitive are referred to printed bulletins and booklets.

An interesting collection contains relics of Peter Cooper's life. There is Peter Cooper's pocketbook showing how he always kept twenty-five cent pieces to give poor people. No one left the house without one. Such charity contrasts strongly with the contemporary donors of ten cent pieces. One can also see Mr. Cooper's square spectacles, inkstand, keys, watches, and books with underscored passages.

Old faded sofas with beautiful birds, bee and flower motifs, and delicate chairs awaken poignant memories. A satinwood cheval glass reflects the present, but one wonders what it has seen in by-gone years and what it will see in the future; if the throngs who visit it will always be misinformed students or sedate lovers and critics of art.

There are some very interesting paintings which are quite recent, French hand-painted doilies and myriad other things. The Museum is a veritable treasure trove, arranged so that one is con-

stantly getting such pleasant surprises to relieve the monotony.

The majority of the visitors are students and artists interested mainly in textiles and wall panel decorations. The rest are delightful old ladies who come to see their friends' collections or loans and comment over the intrinsic value and condition of objects.

It is easy to distinguish the students from the various academies of design by their harried look and cursory examination of rare treasures and prolonged ponderings over hand-painted valentines and nursery rhymes. These little books are illustrated with engravings reminiscent of John Held, Junior. The poems are charming, the books interesting and the legal documents both educational and intriguing.

The directors of the institution are charming indeed. One could talk to them for hours to hear the pleasant anecdotes and histories about the place they work in. They are probably only too eager to divulge the exciting narratives which everyone would like to hear, but unfortunately they are always occupied with their work of labeling, relabeling, filing, tabulating and retabulating objects to keep eighteenth century collections up to date.

The helpful assistants will lead you to what you want and fade silently into the background of tapestries or Greek urns. Permeated by a feeling of peace and forgetfulness you gaze in awe, in a dazed manner you dream of the glory of past centuries.

A visitor has been heard to remark, "A few pianos in a nudist colony."



The Museum benefits considerably by the generous gifts of its many friends. The catalogue tells us that they sacrificed many precious heirlooms and personal bric-a-brac from their own shelves. Many a person has looked in vain for a familiar anti-macassar only to discover that it had been donated to the Museum in the spring by one of their more generous relatives.

The scrapbook department is no small nook of desultory material. It has an expansive and ever-growing collection which cleverly combines the chaff with the grain for comparison's sake. It takes into consideration the fact that different people appreciate different things. The material, arranged alphabetically, chronologically and geographically, is constantly being revised to render it more available for study. New clippings are being added daily to this wonderful, exhaustive and comprehensive collection.

The Reference Library is still another rich source of information. There is a remarkable series of ancient and modern illustrated books not found in many other places. Included in the category are some beautiful hand-blocked Chinese books which have inspired

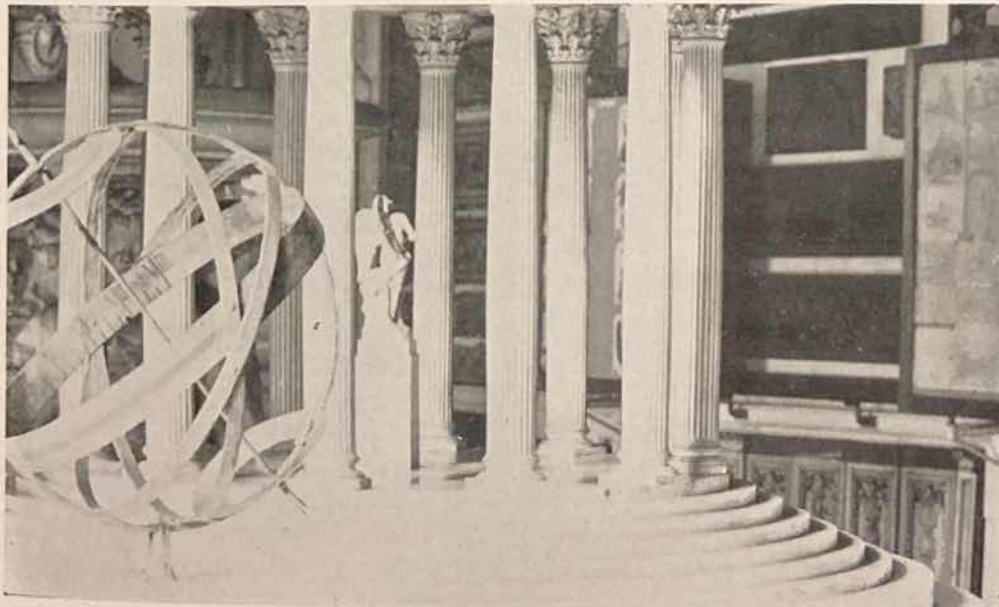
many designers with beautiful ideas for self-expression.

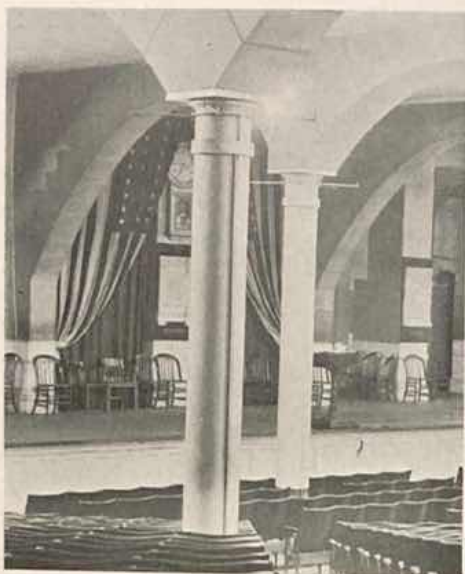
Since its inauguration the Museum has served as an inspiration for countless students and laymen. One benefits by the opportunity of working with outstanding masterpieces as well as by the use of the scrapbook department and reference library. Long, uninterrupted hours, pleasant surroundings and a helpful staff put every resource at the service of the public.

An added feature of the Museum is its occasional exhibitions, which are of such interest that they attract the attention of many New Yorkers. Last year, there were shown puppets and marionettes of all sizes and description, from the tiny Chinese dolls to the larger than life characters that had been seen in the then current production of "Alice in Wonderland." This year a show of dolls was held. Included were models of Queen Victoria and Prince Albert costumed for their wedding, and others of historical significance. Typical dolls of many foreign countries were shown in their characteristic dress.

Every year, the Museum publishes a magazine, "The Chronicle," which explains the value of the institution, its purpose, work, and plans for the year. This publication also serves the purpose of thanking the owners of many articles for their kindness in lending them for exhibition. It also contains news of the various departments of the Museum.

The Cooper Union Museum has a remarkable collection of varied exhibits in its rather confined quarters. Its lack of room has caused paintings to be hung in the corridors leading to the Museum proper. An example of the crowded condition is shown here wherein an example of classic architecture in miniature is placed alongside an old sun-dial.





THE GREAT HALL

THE first part of the complex anatomy of Cooper Union that the prospective student meets is the Great Hall.

Here the student receives the Entrance Exam; here the lucky Freshmen assemble for their programs and their formal introduction to Cooper Union. After this formal introduction the student forgets all about the Great Hall. Little does he know of the informative lectures given bi-weekly to all who desire to attend them; or of the important political rallies held there. He stares in surprise when a friend informs him that an important meeting was held there. He never even knew lectures were held in Cooper Union, except in class.

Ever since Lincoln made his famous speech at Cooper Union, the Great Hall has been famous in history as the place where important political speeches should be made. Lincoln rose up to speak, an unknown man. He was introduced by the chairman as "Mr. Abe Lincoln, of whom some of you may have heard." Within a week's time he was known through the nation.

Lectures, speeches, and meetings of all types have been held in the Great Hall. Dissertations on Science; lectures on the Fine Arts; political speeches; Labor rallies; all have been intermingled with the Philosophical Discourses that are made a regular feature of the Great Hall.

It was established by Peter Cooper for just these purposes. It was planned, so that it would not interfere with the regular school routine. So successful has this plan been that very few students know of the hordes of people that periodically attend the meetings there. The Great Hall was created so that the working man would have a place to assemble; so that the working man could learn of the philosophies of the great thinkers, and thus be aided in developing his own philosophy. To these ideals has the Great Hall been dedicated and consecrated throughout the decades of Cooper Union history.



ADMINISTRATION



THE BOARD OF TRUSTEES

Gano Dunn

J. Pierpont Morgan

Elihu Root

Walter S. Gifford

Barklie Henry

Mr. E. L. Rehm, Secretary

THE Cooper Union is fortunate in having an exceptionally active and interested group of men in charge of its administration. They include Gano Dunn, President; Edward L. Rehm, Secretary; Percy R. Pyne, Jr., Treasurer; and the Trustees J. Pierpont Morgan, Walter S. Gifford, Barklie Henry and Elihu Root, Jr.

Gano Dunn, President of Cooper Union, is one of the best known engineers in the country. He received his B.S. at C.C.N.Y. and his M.S. at Columbia. Mr. Dunn has been President of the New York Electrical Engineers, and the United Engineering Society. For many years, he has been affiliated with the J. G. White Engineering Corporation.

Edward L. Rehm was elected Secretary in 1926 after he had been Assistant Secretary for eight years. According to the Code of By-Laws which was adopted at the first meeting of the Trustees of Cooper Union, in 1859, the Secretary "shall have the general oversight of the various departments of the Union, and manage its scholastic operations; be the organ of communication with the community; make quarterly reports to the Board of the progress of the various departments of instruction; and that he shall assist in the selection and engaging of lecturers and instructors; and appliances of instruction and improvement; in making the courses of instruction, and in making the rules and regulations for the different departments." In these ways, the Secretary, with his assistants, Miss Betty Carbon, and Miss Ruth Ann Dore is in contact more than any other of the administrative officers with the general public and the students. The Office of the Secretary is really responsible for keeping the machinery of the school running smoothly.

J. Pierpont Morgan has been a Trustee of Cooper Union since 1912. His interest in art and education is further manifested by his Trusteeship in the Metropolitan Museum of Art, The New York Trade School, the New York Public Library, and The American

Museum of Natural History. Mr. Morgan received his A.B. at Harvard and has been thrice honored with an LL.D. Mr. Morgan is head of J. P. Morgan & Company and director of the United States Steel Corporation.

Elihu Root, Jr. has been a Trustee since 1929. He is also a Trustee of Hamilton College, his Alma Mater, and the Metropolitan Museum of Art. At Hamilton, Mr. Root earned his Phi Beta Kappa Key. He has been honored with an LL.B. at Harvard. Mr. Root is a member of the firm of Root, Clark & Buckner.

Percy R. Pyne, Jr. has been Treasurer of Cooper Union since 1925. He began his college career at Princeton University, and received both his A.B. and M.S. degrees at New College, Oxford, England. Mr. Pyne is interested in Archaeology and Ethnology.

Barklie Henry became a Trustee of Cooper Union in 1935. He also serves in this capacity for St. George's School, Newport, R.I., and for the Green Vale School of Roslyn, L. I. Mr. Henry is the President of the New York Association for Improving the Condition of the Poor, and director of the U. S. Trust Company of New York.

The Administration, through the cooperation of the Trustees and the efficiency of the Secretary's office, has fulfilled its time honored duty of keeping Cooper Union truly an Institute for the Advancement of Science and Art.



Above are depicted the staff of the Secretary's Office. From left to right, they are: Miss Dore, Miss Carbon, and Mr. Rehm. In their capable hands are entrusted the administration and coordination of the various departments of the Cooper Union.

DEAN BATEMAN



To The Student Body:

With understandable pride your Cable Board has dedicated this publication to your Alma Mater. Founded by a single individual long before the days of American large scale philanthropy, the Cooper Union has faithfully endeavored to carry out the ideals of its Founder through these past seventy-eight years.

Frequently aligning its courses to meet the changing needs of the professions, it has sent the roots of its service deep down into the life of the City. Operating quietly, thoroughly, and efficiently, it has enabled tens of thousands of earnest young people to receive an education which, because of their circumstances, would otherwise be denied them.

Its graduates are distributed over the length and breadth of the land, filling positions of responsibility in all phases of industry and art. Many have also attained prominence in the civic life of the nation. The Cooper Union is justly proud of its alumni. It is proud of its students whose serious endeavor enables them to meet its high standards. Well may the attainments of its junior and senior students be an incentive to those in the lower classes who are battling against adverse circumstances in their journey toward the goal of becoming Cooper Union Graduates.

To advise you and encourage you on that journey is one of the greatest pleasures of my work as Dean. Please feel that my services are gladly at your disposal.

With every good wish for your success, believe me

Cordially yours,

Geo. F. Bateman

Dean, Schools of Engineering

OFFICE OF THE DEAN

Miss M. S. Wolf
Miss G. O'Riordan
Miss M. Gorman
Miss E. Knight



These, the portals of the Office of the Dean, will always be symbolic of the gentlemen who is within them and will long remain in the minds of the Engineers who haunt the halls of Cooper Union.

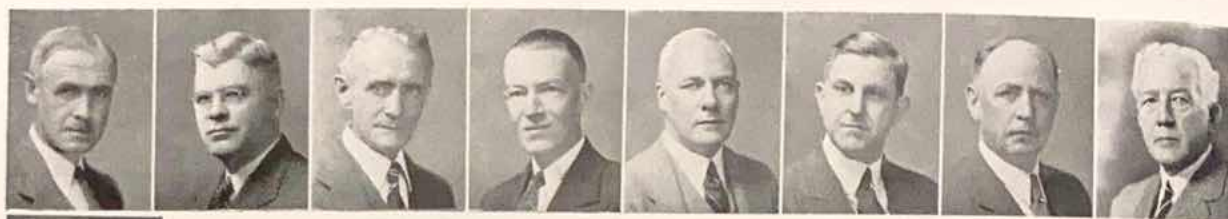
THE very name of this office portends evil to the uninitiated student of the Union. The location of the office is unknown to many. It is located directly in front of the office of the Dean and here anxious students twiddle thumbs and bite fingernails while awaiting an interview with Dean Bateman or Miss Wolf, the Registrar. Furnished not too pretentiously, the office contains several desks and filing cabinets containing unlimited information about each student from the time he enters The Union until the time he leaves as a full fledged graduate engineer or as ———.

Among the many and varied duties assigned to the overburdened Registrar's Office is the editing of the various catalogues describing the Schools of the Institute, the nature and scope of the courses offered therein, the stringent requirements for entrance, and the still more exacting requirements for graduation.

Here congregate the Engineering Students to apply for split and part time programs, to appeal and to alter these programs once they have been issued, and to ask for exemptions and privileges.

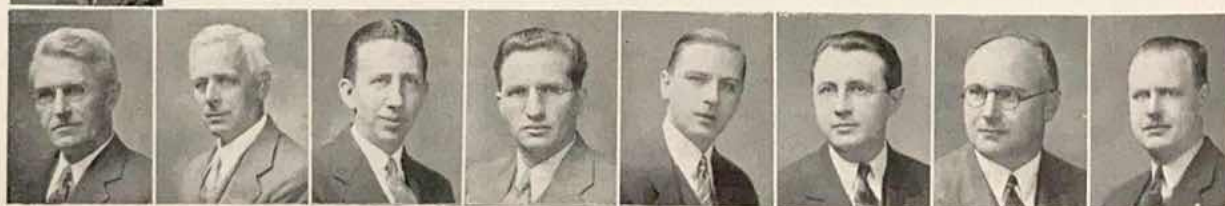
Here, too, must all Engineering and Art Students apply for special permission to post notices of social and scholastic activities such as Tekart Dances, Basketball games, Class and Council Meetings, etc. How many times has a student impatiently waited while his notices were checked for size and content and wondered why his work was not accepted immediately on the strength of his word and appearance?

Taken all in all, the Registrar's Office at the Institute, like that of all other colleges, whether large or small, is one of the very nerve centers which manifests itself almost any way we turn.



COOPER UNION

Starting from the upper right portion of the "C" and reading to the lower right—Professor F. E. Foss, Professor



A. Ball, Professor H. W. Reddick, Professor A. B. Newman, Professor N. L. Towle, Professor H. C. Enders, Professor R. C. Brumfield, Professor K. Hauptman, Professor W. J. Pickett, Professor H. W. Merritt, Professor J. Coull, Mr. F. H. Miller, Mr. J. P. J. Williams, Mr. W. E. Bossert, Mr. H. B. Hope, Mr. A. J. B. Fairburn, Professor H. F. Roemmele, Dr. W. G. Findley, Prof. C. H. Young, Mr. F. H. Tallman.



INSTRUCTORS

Starting from the upper left hand part of the "U" and reading to the upper right hand part—Mr. Lawrence Perez,

Mr. Emanuel A. Salma, Mr. Hugh Halsey, Dr. Elmer Mantz, Mr. Charles H. Lehmann, Mr. Allan A. Tarr, Professor Ernest W. Starr, Mr. Austin H. Church, Mr. William A. Vopat, Mr. Raymond F. Kunz, Dr. Clarence S. Sherman, Mr. Philip Nudd, Mr. Stanley L. Schauss, Mr. Miles H. Van Buren, Mr. Kenneth E. Lofgren, Mr. L. L. B. Summers, Mr. M. T. Ayers, Mr. John W. Langguth.

THE MOVING SPIRIT

I HAD a chat the other day with a young friend of mine who expects to graduate from high school this June. He has a vague liking for engineering — why, I don't know — it's just one of those things. We were discussing the various branches of the profession, and, of course, the question of the faculty came up.

"What's a college professor like?" he asked. "All I know is what I read in the papers, and it seems to me that he's a queer codger, with a big forehead, telescopic eye-glasses, and a far-away expression on his face. You know, the brain-trust and all that."

"Well," I laughed, "there may be some profs like that, but I haven't met any, at least not at Cooper. Engineering is such a hard-headed vocation that people associated with it can't become impractical dreamers, even if they tried. At least, not if Prof. Starr marking an E.E. report.



they amount to anything. No, the faculty at Cooper doesn't go around in mortar-board hats and flowing gowns. If you saw one of them on the street, you wouldn't think him anything else but some business man. He would probably be neatly dressed, but no fashion plate. And



Professor Ball, noted for his interesting lectures, is shown performing one of his experiments with Mr. Bossert recording.

as for the far-away look, it just isn't there!

"Take Professor Coull, for instance. If you come to Cooper, you'll have him for the General Chemistry lecture. He's Scotch through and through, and it won't take you long to find it out. He teaches some subjects to the fourth year men, and he lets the good boys do some experiments in his Spectroscopy Lab, his pride and joy.

"Prof. Coull's side-kick is Mr. Hope, whose course in Quantitative Lab. is one of the worst stumbling blocks for the Chems. Mr. Hope is an exacting instructor, but nevertheless very affable, and, incidentally, the best bowler in the department.

"Two other Chem instructors who stick together are Mr. Kunz and Dr. Sherman. Mr. Kunz is considered the Senior 'class-teacher' because he is so often in conference with them. He's a poor bowler, but is very ambitious for the development of his department. 'Doc' Sherman is a rol-

licking soul, whom you'd never suspect to have a Ph.D. He calls the boys by pet names which are not always printable, but always humorous."

"How about the first-year teachers?" my friend asked. "They'll be the first one's I'll meet if I go to your school."

"You'll find them a very fine group," I replied. "Professor Ball, head of the Physics Department, is more than a Physics instructor. He's a dramatist. During his lectures you never know when some startling effect will be forthcoming. Usually genial, sometimes he gives a sermon which has the freshmen writhing in their seats. Professor Ball has become an institution in the school, and could not be replaced by anyone."

"The high-powered brains of the E. E. department are Professors Towle and Starr. Professor Towle is never stuck for any quantity; if he doesn't know it, it's 'umpty-ump this,' or 'umpty-ump that.' He likes to answer questions in Scotch, which is to ask another question in reply. Professor Starr is the brilliant 'Circuits'

Prof. Reddick waits as class puzzles.



man of the department. From his wide experience he likes to give 'Dutch uncle' lectures, which are usually appreciated.

"If you've ever seen an acrobat teetering back and forth on a very high chair, you have some idea of the class sessions of Mr. Fairburn.



The secrets of motor efficiency laid bare by the effortless mathematics of Mr. Nudd.

'A. J. B.' is a 'big DC man' and knows his stuff, but sometimes gets balled up in his discussions. Usually though, he extricates himself just before the bell rings. His favorite expression is 'Dear knows what,' and he likes to regale the Juniors with his tales of friends who were killed by electrical shocks.

"The Mechanical Engineers have an energetic instructor in Mr. Vopat. He specializes in the presentation of dry, familiar subjects. Next to his avid interest in power and power plants, his greatest field is the delivery of meaty moral lectures at any time during class hours, even devoting complete sessions to the importance of facing reality and enjoying life. His persistence in demanding assignments and his 'summaries' are the bane of the Senior Mechanicals.

"Whenever the Mechanicals complain about being overworked they are answered with a clear analysis by Mr. Salma. With logical persistence he explains what superb time-wasters the students are. His ability to spar quips with anyone livens up the long laboratory periods.

"Professor Roemmele is an alumnus who lives and believes the dictum that college life, in addition to

classroom work, offers the opportunity for first-rate social activities in societies and clubs. The informal comradely attitude he has toward the Senior Mechanicals eases the strain of the final year. He frequently comments 'Is that right?' or 'What do you think?' His energetic activities outside class usually far outrun the ability of most students to keep up with him."

"You haven't told me anything about the Civil Engineers. You know, the men with hair on the back of their hands."

"Well, as a matter of fact, for once your impression is correct. Particularly, Professor Brumfield, who thinks a desk is a place to put your feet. 'How, now, brother scholars,' he says, when the class is a bit slow to get the point of his lecture, and though he speaks lightly, he is no man to trifle with. His forte is "Statically Indeterminate Structures," something concerning which the less said the better.

"The head of the Civils is Professor Foss, a remarkably spry man for his seventy-five years. His favorite subjects of conversation are his home in Maine, which he has worked hard to improve, and his old Stanley

The most popular instructor on the teaching staff fits the description—"a born gentleman"—perfectly.



Steamer. In 1902 he raced a Packard limousine up a hill and went up and down twice before the other car had reached the top. Professor Foss has traveled a great deal, and has a library of colored photographs which he enjoys showing. He specializes in scenic views of the United States.

Mr. J. Paul J. Williams is the philosopher of the department. At the beginning of each course he gives some choice bits of philosophy. His idea of the proper attitude of the educated man toward life in general is well known to the Civils. Mr. Williams has written several books, one of them containing six pages of symbols! So far he has gone through the alphabet several times and is still going strong!

"The tall lanky representative from Staten Island is Mr. Perez. This rock-ribbed Republican enjoys political arguments in class with the students, who usually disagree with him. As a chalk-catcher he is unsurpassed. He has an annoying habit of reducing a problem to four simultaneous equations in five unknowns and then saying: 'The solution falls apart.'"

The would-be engineer had been listening quietly during this long discourse.

"Don't the fellows study anything else but engineering?" he interrupted.



J. P. J. Williams explains the intricacies of hydraulics.



Above is shown a typical Brumfieldian stance.

"Yes," I replied, "there are a few non-engineering courses scattered through the four years. Mathematics is the toughest one, but we have a group of instructors who make the stuff as easy as possible to take. Professor Reddick is a Math wizard who is perfectly at home in his subject. He adds a subtle humor to his explanations in class. He is usually seen in the company of Dr. Miller, another savant with the ability to expound the longest and most involved theorems 'with the greatest of ease.'

For maximum density in an instructor, there is none to excel Mr. C. S. Lehman, mathematics instructor. He is noted for the vigor with which he emphasizes the highlights of his subjects, pacing up and down the room, and gesticulations. His audience is not always limited to the occupants of the particular room; freshmen in room 75 have reported they are progressing nicely in the calculus course delivered to the sophomores in room 70. Invariably included in his schedule is a short course on politicians, whose short-comings he roundly denounces.

"Call it incongruous if you like, but the freshmen are exposed to a course in Social Philosophy. The expounder of this fearful-sounding subject is none other than Everett Dean Martin, lecturer and writer of the first

magnitude. A keen insight into human nature, fortified by a broad knowledge of historical movements, makes his discussions of social problems at once interesting and thought-provoking. At times his attitude is somewhat paradoxical, for he can ridicule the follies of democratic groups in one breath, and take the stump for democracy in the next. Professor Martin heads the Department of Social Philosophy at Cooper Union.

"Our triple-threat man in the field of supporting courses is Dr. Mantz, teacher of English, German, and Economics. After long years of attempts to add a little culture to students, filled to the gills with formulas and theorems, he has assumed a laissez-faire attitude as a final compromise. Another gentleman who has a thankless job is Mr. Garvey, teacher of Law and Accounting. He tries hard to add some palatability to his subjects, with no little success, due to his indomitable sense of humor under stress."

"You certainly do know a lot about the faculty," said the young man. "In fact, I'd almost think you graduated from the school, if I didn't know you were just a janitor!"

Messrs. Van Buren and Perez show a laboratory squad how to operate the torsion testing machine correctly.



A. PURVES, DIRECTOR



SIX years have been spent upon the organization of education in the Art Schools. Preparatory courses in architectonic, plastic, and graphic design have served to orientate students for advanced study in line with their demonstrated capacities. Restricted vocational training has been greatly modified and placed at the end of the course.

Full fledged High School graduation might well be our next requirement for admission, and following that, the development of degree conferring courses in the major aspects of design. It would seem advisable for maintenance of proper standards of study that Night School students be employed in some phase of the professional field for which they are studying.

There are plenty of people entitled to free professional education both Day and Night, and as Cooper Union is beholden to no outside influence, political or financial, it should be second to none in quality.

Arthur Purves.

ART SCHOOL LIBRARY

AMONG the many advantages enjoyed by the Cooper Union Art Students, one of the most outstanding is his access to the Art School Library, which has two divisions, one on the sixth floor and the other on the second floor.

A glance at the shelves will show histories of art of all ages, books on the technique of design, fashion illustration, lettering, and every phase of art. There are books of reproductions, portfolios of prints, books on travel, classical literature, and volumes on natural history. Many are the French, German and English editions to be studied, in addition to the American works. Some of the books are volumes which can be secured but once in a lifetime, such as the new Cezanne, the Gothic Tapestries, the Breughel prints. It is through the Pierpont Morgan Fund that such treasures were acquired. There are on hand the current editions of a great number of worth-while art magazines.

Miss Magloff, the librarian in charge, is certainly a worthy guard of these treasures. Her great interest in art and in such precious books and prints makes her a valued collaborator for the student in his research.

Art students would be lost without the Art Library with its volumes and folios of interesting and valuable data concerning the ancient and modern masters alike.



ART SCHOOL



THE Art School Faculty is made up of a richly varied cast of characters. The two teachers of advanced painting, Mr. Harrison and Mr. Eldredge, have entirely different natures. Mr. Harrison has an explosive enthusiasm and fluent tongue. He enlivens his class lectures with just the right phrases and gestures. He wears his hair long, swathes himself in a baggy coat, and carries a stick. Mr. Eldredge expresses himself quietly but with an intense sincerity. In appearance he is unobtrusive and in manner, pleasant. Both of these teachers are alike in so far as they sympathize with their students' efforts and appreciate their inspirations.

Mrs. Harrison, who has obtained such original and creative design from her classes, is very mild and subtle until aroused by the short-comings of a student. She knows how to make her students work and with a purpose in mind.

Mr. Turnbull, the Painting Techniques Instructor, is an authority on the subject and has published a book on Tempera Painting. One can tell when his class is in session by his booming voice which thunders around the room. At parties he entertains all with hilariously funny songs.

Mr. Westervelt, who teaches Advertising Design, is noted for his subtle sense of humor and his collections of stories. He is a geologist and a collector of



INSTRUCTORS



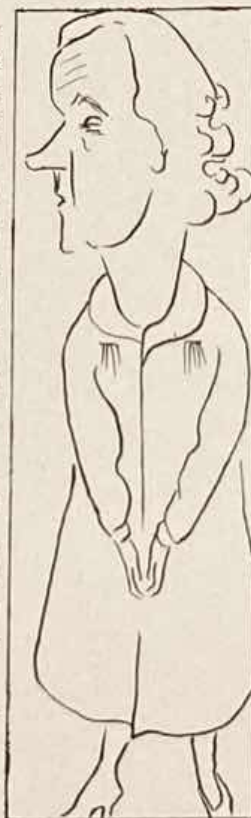
stones, too, but the story collection is most enjoyed.

Although Mr. Rudy, who teaches sculpture, and is young and shy, is supposed to be humorless, he is known to have said "If you must throw your clay around, please do it quietly." Mr. Rudy just completed the sculpture for the new Bronx County Courthouse.

Mr. Stenberg, who teaches first year painting, is very English looking and has had two one-man shows. He studied at the Art Students' League and the Rhode Island School of Design and is an advocate of many compositions and much hard work from his students. Mr. Feeley who comes from the west has given the Freshmen their first taste of abstraction, in a combination of textures and paint known as collage.

Mr. Esmund Shaw, Assistant Art Director in the Day School and Supervisor in the Night School, teaches Architecture and Lettering. His classes have turned out beautiful manuscripts and some skillfully conceived architectural models. Mr. Shaw is the Art School representative of the Faculty Committee on Extra-curricular Activities.

The Faculty of the Cooper Union Art School is unusual in that it has stepped forward with a new approach to the teaching of art based on very fine logic, and needs only time to prove itself.





LAB ASSISTANTS



THE CLASSES



Left to Right, Standing, Top Row—H. Ellis, J. Dusek, A. Gerbore, C. Fromm, W. Darmstadt, S. Dulberg, H. Cooper, J. Corrigan, M. Epstein, J. Mittelman. Second Row, Standing—V. Reale, V. Engle, C. Openden, C. Mistrion, H. Chorney, H. Nagelberg, F. Nelson, J. Phillips, S. Ockun, M. Hagerman. Front Row, Sitting—W. Stephens, K. Neuman, W. Racz, A. Popofsky, M. Drake, L. Early, M. Krajewski, H. Lopez, D. McNair.



Left to Right, Top Row—J. Shanahan, S. Wechsler, G. Heun, S. Walker, C. Stephens, F. Brandkamp, F. Herr, C. Guerri, M. LaPlaca, S. Rubinoff, A. Sielke. Second Row—E. Huchital, J. Schweisguth, J. Schaefer, E. Slovak, E. Sichel, J. Gummersall, A. Laufer, J. Capello, L. Laub, R. Averell, J. Chovaner. Front Row—V. Vierling, K. Sloan, M. Weinstein, B. Stegman, N. Wilensky, J. Chyczewski, T. Wilson, E. Hammerstrom, L. Kogut.

NIGHT ENGINEERING CLASS OF 1942

DAWN burst forth once again at
The Cooper Union and two hun-

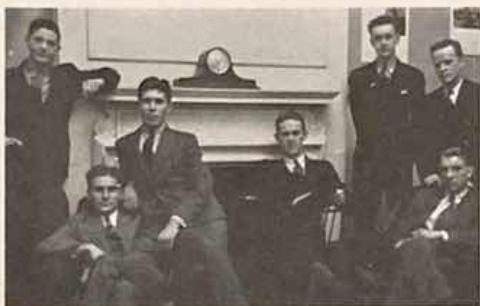
dred enthusiastic men and one woman entered into its aged and welcoming halls. That was on one fine September eve. Now, toward the end of the first

year, somewhat less than two hundred men—and still one woman go plodding about the halls,—a muttering student goes by, “. . . pierce points . . . hydrogen . . . dimensions . . . compositions . . . more pierce points.” It is as Shakespeare wrote. “Enough! No more. ‘Tis not so sweet now, as ‘twas before.”

But out of that cold blackness comes the warmth and light of the newly formed friendships. The laborer, the post man, the clerk,—all go marching on together, striving for a common goal five years in the future. For one, this goal may materialize; for his friend, it may not. Every freshman is fully aware of this possibility, more so now than in the beginning. Although these friendships, founded upon a mutual ambition and a mutual apprehension, may not endure, their effects will ever be with us.

Shortly after the opening session the class sections elected their respective representatives who met to select the class officers. Robert Rogge was chosen as President, Henry Flar as Vice-president, Wesley Stephens as Secretary, and James Phillips as Treasurer. An Executive Committee consisting of Fred Herr, Robert Averel, and Albert Lorenz was formed to aid in the planning of class policies. The plans are being laid for a dance to be held in conjunction with the Second Year Class. This grand occasion was to have been held in February but circumstances made it necessary to postpone the date to the latter part of the school year. The Committee is confident that the affair will have the enthusiastic support of the men for whom it is being held.

Our work so far has been difficult, and it is often discouraging. We study as we have never studied before, and our faces carry the marks of anxiety



Left to right—Bob Averall, Wes Stephens, Pres. Rogge, Henry Flar, Fred Herr, Albert Lorenz, J. C. Phillips.

These Night Freshmen are intent upon concerning themselves with what the professor has to say about mechanical drawing.





This scale is not like the proverbial butcher's, often balanced by the pressure of a finger.

while waiting for the results of examinations. In many cases these marks turn to frowns of disappointment when the bad news is received. But all has not been without comedy. For example, our trio of Heere (pronounced Hare) Hepp, and Herr (pronounced Hare) never cease to provoke a laugh at roll call as they answer "Here" to their names in euphonic rotation.

The Chemistry Laboratory course carries with it no end of possibilities. One night found Heere making "fireworks" by tossing grains of aluminum into his Bunsen burner. Fred Herr surprised everyone that night by supplying a sequel to the "fireworks," inadvertently allowing a cloud of smoke to emerge from his test tube.

The Stephens boys, Charles and Wesley, are forever swearing that they are not brothers and make no bones about their apparent thankfulness for this fact. The truth of the matter is that they are quietly attempting to connect their ancestral trees somewhere in the Dark Ages, but so far have not met with much success. "Stew, the Studious Student," (alias, Stewart Walker), our

Left to Right, Top Row—Mathiesen, Bertin, Bohlander, Kushins, McCracken, Brinkman, Aglietti, Machenson, Majlinger, Orsini, Coffey, Salit. Third Row—Lichtenstein, Lebin, Last, Lucken, Larkin, Kulewich, Kulkman, Brandt, Hughes, Greene, Hagedorn, Hall, Rogat. Second Row—Schultz, Sjogren, Barrett, Lasco, Guerri, Gouzoulis, Smith, Hepp, Grossman, Heere, Grossner. Front Row—Weil, Tunderman, Scheiner, Schultz, Rogge, Bishop, Mara, Hurward, Beirlein, Wickman.



Class Pessimist, can still be seen going home on a moonlight night with his raincoat on.

Among our brain-trusters (those whose greatest pleasure is derived from tripping up the profs) are such personalities as Jensky, Cashman, Levenson, and Koloff, with honorable mention going to Solomon, Heun, and Hughes.

Much spirit was added to the class by the colorful Guerri brothers, Carl and Harold. Carl, an amateur photographer, had the students, and even the instructors, posing for his "shots." (Many of these in *The Cable* are of his making). The boys like his familiar "Now this one will be for ten seconds" especially when he presses the Messrs. Cumberland, Szymanowitz, and Ayers into consenting to pose "just five seconds."

But yes! There is always the "gag-man." In every school there is the gifted one with a joke to suit any occasion, and a card trick to baffle all. If any one of us feel in need of a joke (any kind) or a trick involving anything from a deck of cards to a toothpick, we have but to call on the class "trickster," that fun-loving promoter of good humor, George Smith.

One of the most encouraging factors in our school life is the amiability of our instructors and their generous appreciation of our difficulties. Mr. Szymanowitz, shorn of his name, is one of the most interesting. His is the habit of never looking a student in the face, before or after asking a question. Dr. McMacken is best remembered by his plea, made one night during a test; "The room is a bit crowded for a test—but please don't write on your neighbor's paper."

In conclusion, may we say on behalf of the First Year Class, that we are thankful for the honored privilege of attending a school so splendid as the Cooper Union, and our sincerest wish is that we may some day be able to return in part the many benefits which the school has so freely proffered to us. In the meantime as we face the long and arduous task of the six-year course, we shall strive to gain the respect of the instructors by doing careful and diligent work. In this way most of us hope to complete the course.



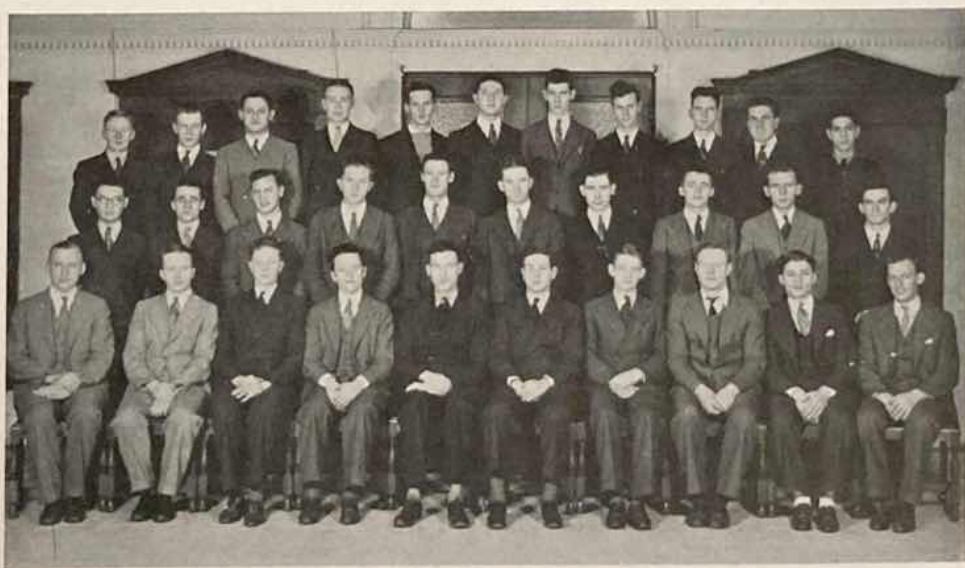
This busy, embryo chemist is reading warm air volumes with a gas burette. We wonder if he is really as interested as he looks. After all, it's only a lot of hot air.

Note the thoughtful expressions on the faces of these members of a first year night class struggling with neither their first nor their last chemistry quiz. No, the equations will not help them.





Left to Right: Rear Row, Standing—J. Badami, J. Selman, H. Decker, E. Bildziukiewicz, W. Braun, F. Delassalle, J. Bulger, S. Alessi, M. Seckler. Second Row, Standing—J. Keene, S. Kovaleski, F. La Tour, R. Laban, C. Lange, A. Kahn, W. Higgins, P. Simackewich, L. Siegel, J. Bryer. Front Row, Sitting—G. Barthelheim, D. Crespi, O. Chaber, A. Ancona, S. Bindman, D. Kaercher, M. Johnson, I. Kassman, J. Spielman.



Left to Right, Rear Row—J. Gallery, F. Hamel, A. Dorfman, R. Downs, C. Sullivan, S. Deutsch, C. Tucker, J. Tuit, M. Wernander, C. Stryuk, G. Vinci. Second Row—B. Shmulevitz, M. Mullio, H. Wind, J. Stanislausky, J. Kakrofsky, F. White, V. Luskus, O. Wade, R. Woessner, A. Stern. Front Row—N. Chadwick, G. Springer, W. Early, A. Brand, L. Gordon, N. Fine, H. Hansen, C. Hartman, A. Margolin, M. Weiss.

NIGHT ENGINEERING CLASS OF 1941

IF this were a page in the book of time, written across it in resplendent letters would be the following prophecy:

"It shall come to pass, that from September, 1936, unto June 1937, one hundred and fifty of all the mortals on the planet, Earth, shall be enrolled as the Second Year Class in Engineering at that institution of learning known as the Cooper Union Night School."

Verily, it came to pass. We are the chosen few. Few, indeed! At the inception of our course, we numbered two hundred strong. But after the passing of later events, we are now but one hundred and fifty.

At the start of this year, it seemed as if nothing could disturb our equanimity. Accustomed as we were to the standards at Cooper, the general feeling was that this year's work could be taken in stride, (after all we had passed the previous year).

After the first few weeks, our smugness was as shattered as the myths surrounding a certain ebony superman, after a disastrous night last summer. He, however, had at least one consolation. He had but one night to go through. His subsequent nightmares while deserving of sympathy are of no account when compared to the unfortunate lot of the Night Engineer. Our nightmares were a countless repetition. Night after night, for four nights a week, we faced different opponents, and rarely did we emerge the victor. Our only respite was the two hour flight to Morpheus on Thursday nights. (Apologies, Dr. Valentine, your subject was an interesting one, and well presented, but the human body has its limitations).

Between rounds, time was taken for the election and installation of those men who were to represent the Class of 1941.

Anthony Ancona, who for a man in his second year has certainly compiled an enviable record of service to the class and school, (Tony was on the Blanket Fee Exemption Board and on every committee responsible for the Freshman Class functions) was elected





The study of pulleys comprises a phase of the Physics course, marked by manual labor.

President, and representative to the G. S. C. Melvin Rozene, who distinguished himself by the splendid manner in which he helped to make this year's Beer Party a success, was elected Vice-President.

Our sincerest admiration goes out to Edgar Budden for the suavity with which he keeps his hair so smooth, while he inconsistently ruffles that of the instructor. He was elected Secretary.

Lastly, Edward Owen, entitled to the gratitude of the class for his service on the Beer Party Committee, was chosen Treasurer.

As we sat back and gazed about us after the election, the thought uppermost in our minds was whether this year would prove to be as successful socially, as the last one had been. Scholastic success seemed assured, but the cementing of friendships at Cooper Union came in fraternity life and class affairs.

A few of the numerous incidents, events, and untoward happenings brought to light are well in order.

George Blasius entertained with a few numbers on the piano,

Left to Right, Rear Row, Standing—M. Sachs, N. Yesourtch, J. Rothkowitz, E. Owen, W. Nefedov, W. Pagdin, H. Messuschmidt, S. Ohrenstein, R. Maslow, A. Nash, Jr. Second Row, Standing—M. Chernoff, W. O'Keefe, L. Nagoshiner, H. Blenk, C. Kremer, C. Luchun, C. Sorensen, G. Morrow, F. Kober, L. Rodwell. Front Row, Sitting—H. Katz, H. Hilbert, J. Nestor, J. Alpert, N. Horn, D. McCarthy, M. Plum, J. Maurin, J. Braunstein.



at the well-remembered Beer Party. Fred Hamel performed as Beer Purveyor Extraordinaire, while Mel Rozene, Ed Owen, and George Springer dashed madly about to secure more of the wherewithal. But enough of this, for the Beer Party was in itself only an incident, albeit a happy one; and it gave precedence to that all-important duty—that of passing the Final Examinations.

The Christmas Holidays were upon us, and then suddenly gone. With their passing came the first examination, on Elements of the Physical World. Who can forget that last week-end before the final tests? The Universe must be millions of years old but it took us only forty-eight hours to become aged. We bid a silent farewell to Dr. Valentine. His had been the thankless task of lecturing for two hours every Thursday night to a group of sleep-befogged students.

But then, four months were left of the school year. By this time, however, we were in a better condition to cope with the difficulties confronting us. The last year had eradicated much of our tendency to slip through assignments. With the staff of instructors at Cooper, one must be dense indeed, not to grasp something of the subjects.

Professor Ball, who started teaching Physics long before you were born, is one who is reverently termed a student's teacher. Taking a subject as abstract as Physics, he made every lecture a pleasant hour, the while he constantly hammered home the salient facts.

As for the students who did not pass, they are at liberty to disregard this tribute and every other one which is paid to the instructors of a subject which has left them (the students), with a malignant memory.

Here, we must pause, and pay our respects to Mr. E. G. Taplin, who passed away during the current year. In him we lost a trusted friend as well as a brilliant teacher.

We recall many others of the students and instructors, but space does not permit the introduction of them all. Some will be Mechanical Engineers, some will be Civils, some Electrical, and others Chemical, but all will be Cooper men.



A typical scene in the Physics Lab of the Second Year Class reveals that the students have to keep their noses to the grindstone in order to keep up with requirements.

The reason for the pleasant look on this student's face is accounted for by the fact that this apparatus is so seldomly used that he need not know much about it.





NIGHT ENGINEERING CLASS OF 1940

The Class Officers, Standing: Alton Du Flon and Frank McGinnis. Seated: H. Goode and M. Schwartz.

THE Class of 1940, after many vicissitudes, is now approaching the close of its third year of academic life behind the cloistered walls of Cooper Union. The heavy cares of maintaining the high scholastic standing of our predecessors has made this an unusually rigorous year.

Then too, the third year occupies a unique position in the career of the Night Engineering Student. It marks the real entrance into the particular field of technology in which each student thereafter expects to devote his wisdom and energy in the hope of surging through the boundaries established by ignorance. It is that field in which he will strive to make his living.

It is no wonder then that a more mature approach to scholastic problems becomes evident. The very nature of the courses which are common to all third year students regardless of their specialization, demonstrates this truth. Mechanics, laying the groundwork for engineering approach; Calculus, the language of scientific theory; Electricity and Magnetism, in which the marvels of electronic exchange are stressed and its analogous function in all branches of science is suggested; Elements of Trade, introducing the fundamental concept of economic determinism as affected by environmental phenomena; and Principles of Contracts and Agencies, wherein the rigid hand of the Law is exposed with its fingers tensely bound by "precedents."

We regret the untimely passing from our midst of some of our most congenial and well-liked associates. We hope that the time spent in Cooper will have been an aid in the furtherance of their life's work. We shudder to think that it might have been us and hope that the end of this year will see 100% success in this gentle indoor sport of staying in school.

One of the least pleasant features of the third year is the almost universal severing of close friendships. During the first two years, the students had been segregated into alphabetical sections. In the third year the cards are reshuffled and the four suits laid out according to Civil, Mechanical, Electrical, and Chemical Engineering. At the beginning of the term we found ourselves faced once more by the task of learning to recognize our neighbors, in

some cases the majority of our classmates. However, as the years go by the classes get smaller and there is a correspondingly greater intimacy in the classes.

The election of Class officers was held early in the school year. At a meeting on October 7, 1936, Harry Goode, of the Chemical Engineers, was elected President of the Class. Murray Schwartz was elected Vice-President, and Alton DuFlon and Michael Aquino were selected as Secretary and Treasurer, respectively.

Shortly after the election, a meeting was called at which the officers discussed the question of a Class affair. There were so many suggestions and conflicting views as to the type of gathering to be held, and even as to the advisability of such an activity, that they came to the conclusion that it had best be put up to the Class as a whole. Accordingly, Mr. Goode, with the cooperation of Professor Ball, explained the dilemma at the beginning of one of the Electricity and Magnetism lectures. After some discussion it was decided to consider several suggestions and if possible to choose the most popular.

No historical treatise would be complete without the introduction of personalities. It can readily be seen that in a class of our size there will be many different characters and dispositions, in short, that varied pot pourri which goes to make up society, from athletes to mathematics addicts.

The E. E. Section's interest in the Basketball team has been heightened by the presence of Al Skorski and Johnny Mahoney on the Varsity Squad. The latter acquired his lust for sport when he was chosen to represent Brooklyn Tech on the team of 1932.

Election Day was welcomed by all because it was hoped that the election results would lead to the end of the heated arguments on the qualifications of the leading candidates. This fond hope was, as it was everywhere else, destined to die a horrible death.

As a representative in the realm of special students we point to the one who is able to obtain a perfect mark in a Calculus exam, an almost impossible feat, practically unheard of in the history of the school.

Members of the class active in other than scholastic

One student reading, another copying, and the third—uh—thinking, perhaps; thus the Third Year Mechanicals manage to ease up the computations necessary for their Kinematics plates.





Unravelling the mysteries of qualitative analysis proves itself absorbing work.

out the year:

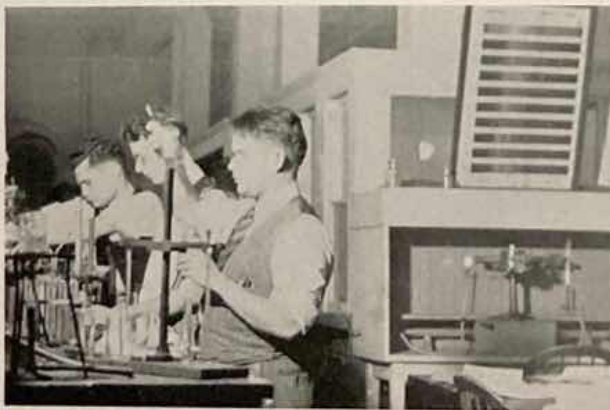
Election Day (first holiday) — Thanksgiving Day (what were we thankful for? A day spent in writing reports and solving scads of problems?) — Christmas Holidays, with the grand finale on New Year's Eve. — Spring vacation — end of finals — Lab Deposits returned — Summer vacations — et. al.

Low lights: Beginning of school — Return of our habitual lethargy — First heavy assignment — Second heavy assignment — Unexpected and disastrous quizzes — mid-year exams — cram sessions — Marks.

In spite of our sad experiences we turn our other cheek and look forward with new and increased enthusiasm which another year holds in store for us. We feel that its trials and tribulations will be more than made up for by the knowledge and distractions which we will receive from our instructors.



The Electrical Measurements Lab is the first opportunity the night E.E.'s have to handle electrical lab equipment.



In the chem lab all five senses are being constantly used. What color is that precipitate? Phew! Ouch! That's hot!

And now with the approach of the end of the year we are grateful for the opportunity of expressing our thanks to the Institute and its Faculty, and to The Cable, Pioneer, and other activities connected with it. Notwithstanding its heavy program, the Third Year Class has made many contributions to the success of the School Year, and from its ranks have come a considerable portion of the energies and enthusiasms which are essential to the functioning of all the school pursuits.

The Class as a whole has shown its interest in the various professional societies by a total registration of at least 85% of its members. They boast of having approximately 25 members in the night branch of the American Institute of Electrical Engineers.

They have earned the reputation of being the shrewdest group of students ever to enter the Union. They have an unequalled faculty for dodging exams. The only way in which the Profs. can determine the ability of the students is to spring surprise quizzes—announced exams are always vetoed in advance.

Now that the Class has completed three years of the Six-Year Course, with the approach of the second half of their course, they lean back and think of the past with envy, and of the future with apprehension. However, they will probably make a success of it.



As bad as it is, the students must make use of that vile hydrogen sulfide.



Elaborate and expensive equipment permit precision of the highest order in the Electrical Measurements Lab.

Taking a few accurate observations on electrical apparatus prior to burning the midnight oil on the eternal report.





The Class Officers, Standing: Herbert Bahrenburg and James Brady. Seated: Frank Vanek and William F. Webster.

NIGHT ENGINEERING CLASS OF 1939

THIS is the fourth chapter in the Memoirs of the Class of 1939.

As in the early spring time, a young man's fancy turns to thoughts of love and other frivolities, so in the late summer, as autumn draws nigh, a young man's thoughts turn to those of seriousness and ambition. It was in this frame of mind that we resumed our course late in September. Although we had had a good deal of experience in resuming our course in September, this our third time, aroused enthusiasm (for the first night anyway).

The first night is always a sort of family reunion, there being a great deal of handshaking, back slapping, and "kibitzing." There aren't many of the students really interested in fishing and fish hatcheries, but there are plenty of "fishy" stories of incidents having happened over the summer, at a mountain or country resort or, perhaps a seashore rendezvous with a little romance added. So much for the first night.

The second night, we were all looking forward to our next summer vacation.

The beginning of the Fourth Year, in September, marked the mid-point in our career as student engineers at the Institute. In the previous years our subjects had been for the most part theoretical—paving the way for the engineering subjects to come. In solving problems in Machine Design, the Mechanical Engineers discovered that there were a great many calculations or graphical analyses to be done in designing a machine member rather than just doing a little adding or subtracting and drawing lines and circles as was done in first year Engineering Drawing.

The Civil Engineering curriculum consists mostly of all practical subjects. Hydraulics is the subject which required the most work. All the subjects which the Electrical Engineers studied were of practical importance, although some are not in the electrical engineering field. The Electrical, Mechanical and Civil Engineers studied the Mechanics of Materials, the Chemical Engineers having to take it next year.

The Electrical Engineers also had a little tough going. The Electrical Measurement Laboratory took up the most time. They always were writing laboratory reports and then writing the correc-

tions, the latter taking a great deal of puzzling and research. The E. E.'s also took Hydraulics, but judging from the lack of complaints this subject did not have the dampening effect on their spirits which the C. E.'s complained of. These Electrical Engineers did complain of the treatment they received in Electricity and Magnetism though. The main complaint was that the course was very confusing. It became the great mystery. The marvels of radio, telephone and various rays and other electric wonders, which seem miracles to the layman, perhaps also seem that way to the embryo E. E. The most fascinating subject of their study is the telephone (especially the numbers and the parties on the other end of the wire). The E. E.'s, made a fuss over the amount of work that they had, but since they were seen to smile once in a while, they must not have been as bad off as the C. E.'s.

The Chemical Engineers of the Fourth Year were a group all by themselves since they had no class in common with any other section of the Year. It seems as if everyone at Cooper Union wants to brag about how tough the going is and so the Ch. E.'s have their tale of woe. Trouble started early; on registration night they had to pay out over thirty dollars in laboratory fees and deposits, and they still had plenty of books to buy. The curriculum consisted mostly of Chemical Engineering subjects of practical importance, a novel feature being the study of German. The general opinion of the members themselves was that the course was not so difficult.

In any group there are always a few lucky individuals who get off easy. The Mechanical Engineers were lucky individuals of the class of '39. There were no laboratory fees or deposits to pay. The course in the first part of the year

was rather easy, but it became more difficult as time went on. Mechanics of Materials was about the hardest subject in the beginning of the year, but Heat Power became the most difficult subject as time passed. This subject was very different from any experienced before. Steam, its properties, and its application is the substance of this subject. Entropy, one property of steam, caused very many headaches and failing marks. Hydraulics was quite an important subject, but was not given much class room time. In the sub-

The Fourth Year Night Mechanicals and Civils find the Mechanics of Materials course given by Mr. Van Buren a tough egg to bust. Not only the course but the instructor as well presents quite a problem to these students.





Ch. E.'s study the analysis of flue gas by means of the Orsat apparatus.

ject of Machine Design, problems in the deflection of beams were solved graphically. This helped the M. E.'s immensely in understanding the solution of similar problems in Mechanics of Materials. On the whole the course was not so difficult, but this will be made up for next year.

As a Class advances in the Years of its course, the sections of the Class do not have much contact with one another since they have very few subjects in common.

The courses also get more difficult and each student has to put almost all his attention to his school work and so has not much time for extra curricular activities. All the outstanding Class leaders seemed to have failed. For these reasons and also for the lack of that "school spirit" in a great many of the students, it took a long time for the Class to organize, but we finally did. The Class officers who finally came to the call were Frank Vanek, Herbert Bahrenburg, Thomas Keaveny, and James Brady. Frank Vanek was elected to the Presidency.

As the year draws to a close many sentimental thoughts come to our mind. We wish to thank our instructors for their willingness to help us at any time. The work was rather difficult, but still we found some time for pleasure although at times we were lucky to get some sleep. After talking to students of other colleges, we feel very thankful to Peter Cooper and the other generous people who gave



A drenching often becomes an unexpected part of the experiments conducted in the Hydraulics Laboratory.



Microscopic examination of metallic crystalline structures forms an important part of the science of Metallurgy.

money or their time for the establishment and maintenance of the school.

That "bugaboo," the final examinations, which fills our hearts with fear is approaching, so here's to success and may we all remain together until that important day in June 1939.

Among the lowlights of our student life throughout the year were the payment of laboratory fees, the test on the last night before the Christmas holidays, the suspense due to not knowing the marks of our mid-year examinations, the disappointment upon learning them, the cramming before the final examinations and the rush to write up lecture notes. On the other hand we had our highlights. There were our first holiday, election day, the Christmas holidays, especially New Year's Eve, the Spring vacation, the return of laboratory deposits and best of all the summer vacation and all that goes with it. Looking back, it can be considered quite a step to pass from the third into the fourth year. The courses have

become more difficult, but they have also become more practical. We have definitely passed the purely theoretical years and are now beginning to use the principles we have already mastered. Also, this is the first year we are all eligible to join the student branches of the various professional societies. Thus, we begin our actual technical training fitting us to enter our chosen fields of engineering.



As can be seen above, the Chemical Lab hasn't much room to spare.



Compression test of helical spring in Civil Engineering Laboratory reveals why trolley cars run smoothly.



These Electrical Engineers are trying to fathom the secrets and intricacies of the parallel operation of D. C. Generators.



NIGHT ENGINEERING CLASS OF 1938

Scene: Cooper Union, Cooper Square,
New York.

Time: Four nights a week (No classes
Wednesday Eve.) from 7 to 10
o'clock. Year 1936-37.

The Class officers, Standing:
William Vreeland and
George M. Phillips. Seated:
Herman Hornickel, Pres.,
and Jacob Schiller.

Characters: Three Regular Students.

Irregular Students (appearing at regular in-
tervals).

Various Instructors.

The Dean.

Also various other members of the student body and faculty,
clerks in bookstore, Foundation Building Watchman, Hewitt
Building Watchman, Chorus of Bowery Tramps, Trolley
Cars, Subway Trains, Autos, Examinations, Etc.

Note: The scenes change very rapidly—so rapidly in fact that no
attempt will be made to record them.

First Regular Student: Ah! One more after this. Ah!

Second Regular Student: Have you got the fifth problem completed?

Chorus of Bowery Tramps: Got a cigarette, buddy? Y'know I wuz
a engineer once. Light? Thanks.

First Instructor: For next week pages 0 to 75. Take problems 267
to 365.5. The subject matter is very simple so that I don't
think I'll have to go over it with you. Go to the library now
and start reading.

Second Instructor: The formula Q equals Z times L times F to the
one-half power. Where Z is equal to A divided by S . And
 S is equal to the square root of G times B . So guess at B .
Say B equals nineteen. Then S equals seven and Q is two
million. Okay. Good guess. Use B equals nineteen.

Clerks in Bookstore: ———plus six cents sale tax.

The Dean: Yes, yes indeed. However, there is a rule ———

Subway Train: Rac-tac. Rac-tac-rac-tac-rac-tac-tac-tac. Buzz
Grrr RRRRRhhhhhhhtactactacTAC.

Autos (in chorus): AhhhOOOOOOOOOahhhhhhhhaaaaaahhhhhh.

Irregular Students: Gosh! Conflict! Four Final Exams tomorrow
at Seven. We'll have to bring our heads along.

Third Regular Student: Now the way we do it in the field is this—

Member of Faculty (with gusto): Now I'm giving you boys an

exam tomorrow. Nobody in my class ever got higher than a C—, So don't worry much, but do some tall studying.

Night Watchman of Foundation Building: Come on. Come on. It's ten o'clock, we're closing up.

Night Watchman of Hewitt Building: It's about time.

Chorus of Bowery Bums: Got a nickel for a cup of coffee?

K. S. Chichester, known to his classmates as Ken, matriculated at Mechanics Institute before entering the merry-go-round of existence at Cooper Union. Ken has worked as a surveyor's helper mislocating plots, and for the last six years as a draftsman. George V. Fitzgerald was raised in the shadow of Peter Cooper's glue factory in the Greenpoint section of Brooklyn, where Greenpoint is Greenpoint and hot dogs are hot diggity dogs. Richard Oldham, of the Tuxedo Oldhams, is the pride of his old home town. When his neighbors there saw him walking by, they gulped their coffee, snatched their hats and shouted goodbye, and ran. Even now, people set their watches by his comings and goings. Jacob D. Schiller was born with a micrometer in his mouth. He is a member of the advanced Machine Design Class and of the A.S.M.E. and Vice-President of the Senior Class. Of inquisitive and searching mind, Morris Welling was born and bred in the glorious town of Brooklyn. He spent two years in industry before entering Cooper Union to quench his insatiable thirst for knowledge. Morris is a member of the advanced Heat Power Class, and past Secretary and member of the A.S.M.E.

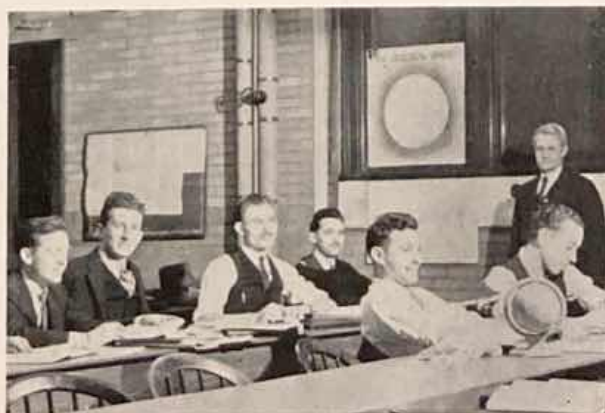
(Ed. Note)—The strange form in which the following article is written can be attributed, no doubt, to the fact that the authors have become so used to writing laboratory reports that any other style has become foreign to them.

Object: The purpose of this treatise is to acquaint the reader with the personalities and activities of the Senior Night E.E.'s.

Apparatus: Six bewhiskered, bedraggled, bewildered, embryonic engineers.

Procedure: The above apparatus, after being examined carefully, was subjected to the six-year course.

With a background of astronomy, surveying, and highway engineering, the Fifth Year Civil Engineering students face the tough problems given by Mr. Williams in his Re-enforced Concrete course with smiling expressions.





Mr. Entenmann keeps a watchful eye on the dials as the Mechanicals scrutinize a few B.T.U.

Analysis of Results: Specimen No. 1:

Edward J. (Weasel) Ezell, slender, spectacled, symphony of study. Looks as though he'd fall apart if blown upon, but he won't; it's been tried. Ed's only vice is his eternal giggle and his inherent curiosity.

Specimen No. 2:

Herman C. (Bill) Hornickel, popular prexy of the class, is of the silent type. His many activities prove Bill's con-

tention that he is an advocate of the twenty six hour day and the eight day week. However, the number of times he has been awakened during lec-

tures could be used as a weighty argument by the opposition.

Specimen No. 3:

Effingham Van Beuren Kettleman (don't call him Effy). Ket is one of the best liked members of the class. He has a level head and a big heart, (but you ought to see his nose). In spite of his many responsibilities, Ket has been able to prove his worth to most of his instructors.

Specimen No. 4:

Andrew (Routine) Levada. He gets things done on time. Andy was sick one week and his laboratory partners, Ket and Bill Vreeland, sent him a copy of the data taken. At the next lab session neither Ket nor Bill had the experiment figured out, but Andy



Structural Design—stresses, scales, size of members, number of rivets, clearance, —and so on into the night.



In the Organic Chemistry Lab the Fifth Year students analyze everything from alcohol (males) to perfumes (females).

handed his in.

Specimen No. 5:

George M. (Specs) Phillips—the wild man from across the Hudson. George is always ready to prove he's right even when he's wrong. Up to now he has been pretty successful but remember the law of averages, Georgie.

Specimen No. 6:

William G. E. (Edison) Vreeland. At the slightest provocation Bill will corner you and go into detailed raptures over the complicated distribution network system used by the utility wherein he performs his daily chores. Bill's long list of extra curricular activities was lengthened by his recent marriage. Lots of luck, Bill.

Conclusion: The condition of the specimens at the time this analysis was made would indicate that the momentum gathered in the preceding part of the test should carry them through the processes yet to be applied.



The most complex instruments are toys in the hands of E.E.'s.

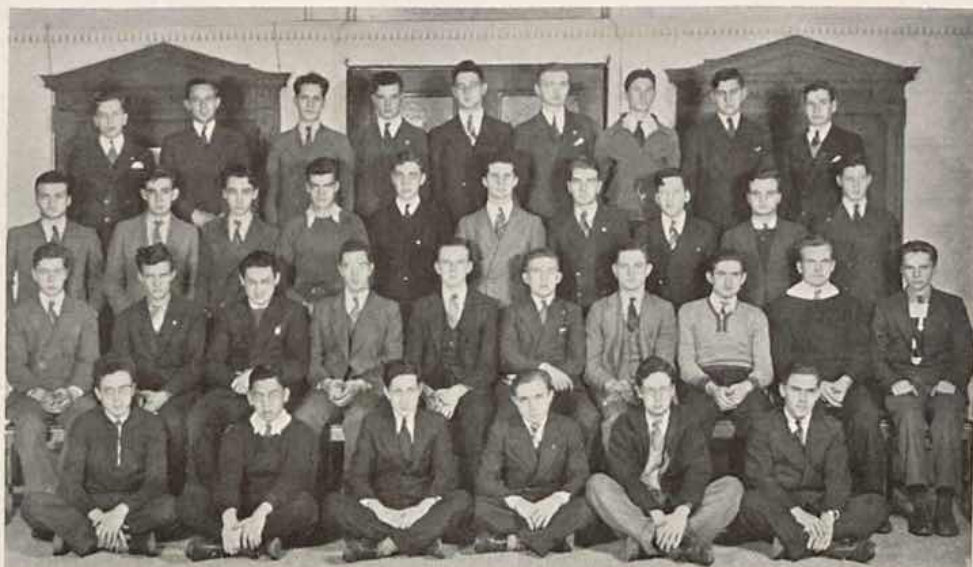


Depicted above is not a bar scene. It is merely the Fifth Year E.E.'s pondering over returned reports.

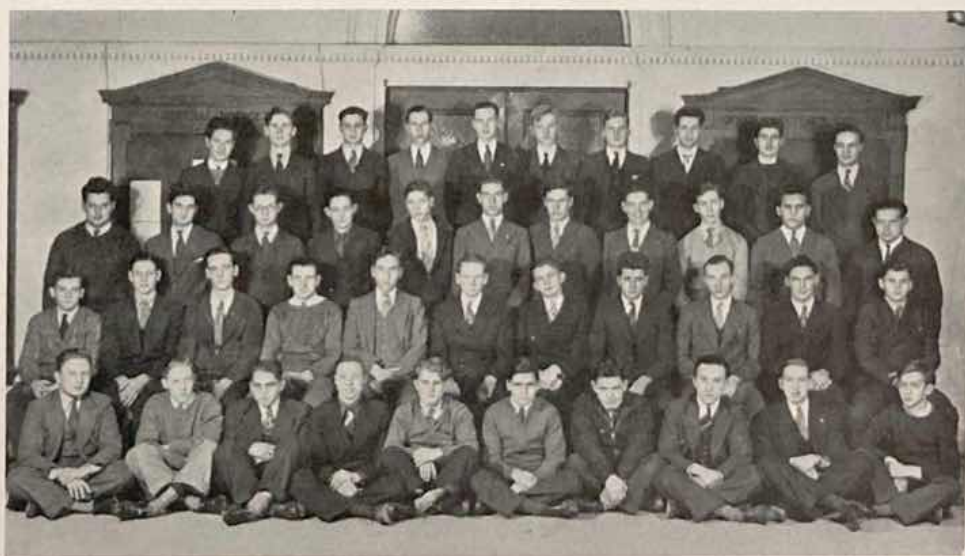
Most unique of the Fifth Year Night Classes is the Chemical Engineering Section. It is the only Fifth Year Class with sex-appeal. Yes, God's little ray of sunshine to these here tired old engineer's eyes, Miss Ruth D. Katz is a member of the class. However, although Ruthie is 100% of the female membership she is only a mere 12.5% of the total roll. To say that she's making out is to put it mildly.

The thorough testing of this York ammonia refrigerating machine includes the taking of innumerable indicator cards.





Top Row—Casimer Cichoski, Joel Carroll, Seymour Adler, Albert Dunn, Gurflein, Behrens, Rosen, Horsting, Ferrigni. Third Row—Machlin, von Storch, Eisner, Hanft, Glatt, Breitman, Nicholson, Porr, Gordon, Costa. Second Row—Kaufman, Abrams, Goldberg, Falkin, A. Glaeser, Goldstein, Gottlieb, Birnbaum, Belikowich, Bobay. Front Row—Lippel, Chu, Adams, Berger, Rapport, Schein.



Top—Goldstein, Neshin, Schoen, Leder, Kline, Pohle, Rothmayer, Moss, Spindler, Hollander. Third Row—Quart, Schwartz, Linsky, Silverstone, Tanner, Harrington, Holms, Slutsky, Stark, Wintoniak, Szarewicz. Second Row—Windrow, Schaffner, Long, Meng, Miller, Gottfired, Moritz, Pavelka, Zeff, Yatrofsky, Kostiw. Front—Tenzer, Homburger, Weiler, Schaefer, Spool, Skiba, Pettit, Seigel, Olson, Jr., Kurland.

DAY ENGINEERING FRESHMEN

Hey diddle, diddle,
Pray tell me this riddle,
"What is this madness they call engineering?"
"Its equations analytical,
"And reactions catalytical,
"To a lunatic could only be endearing." Anon.



TO most of us, accustomed to high-school routine, the first year at Cooper Tech has been a new and challenging experience. The entrance exams, brain-children of what demon we know not, met us at the gates, and defied us to enter. Shades of Euclid and Pythagoras! The earth would tremble atop the graves of these two worthies had they known how their science was impressed in the service of the torturers. The English language, fair mistress of the bard, was forced to stand with raised belying pin as we raced through the gauntlet. A few reached safety, and met on Registration Day, hoping for the best and prepared for the worst. It is perhaps best that we had hope for we certainly got the worst.

It soon became apparent that the Institute had little in common with the college of popular reknown. In brief, no campus, no co-eds! Rather the 3rd Ave. "L," hammering along, drowning out the professor just at the moment he is stating an important theorem. Instead of howling "Hit that line!", the cry became "Solve that problem!" Instead of standing on our heads for pompous seniors, we stood on our heads looking at descriptive geometry theorems. This is known as the solution by rotating parameters, and is pretty good if you can keep from getting cock-eyed. But who can!



Like the proverbial three men on a leaking raft, we soon made friends among our fellow classmates. Among the favored gathering places there were the lunchroom, the Art School, and the fraternity rooms near school. In all our meetings, however, there is the feeling that we have a common objective, the same troubles and worries. We can look one another in the eye and say, "You idiot, going to Cooper Union," and then smile and think, "I'm another." People have told us of the advantages of



All first year engineering students are required to take the course in General Chemistry.

cooperation and division of labor. Now that reports and assignments must be turned in before the dead line we are certain of these advantages.

The Chem Lab period always proved to be enjoyable, for the amusing incidents which constantly occurred. Under the genial direction of Mr. Summers, many of us found handling chemicals a new experience, with many surprises.

Reactions the "wet way" were frequent, but could not be analyzed because they took place on the floor. The "glass trust" also reaped a rich harvest from our efforts. The apparent need for boning on homework for

five hours a night deterred most of the fellows from doing anything but wearing out the nose at the grindstone. A few, however, found time to participate in sports and other extra-curricular activities. These include Willis Abrams, and Herman Long, members of the Christadora gym and pool. Bettering the record of previous years, six of our class have entered competition in both intra-mural water-polo and basketball tournaments.

One of the strikingly different courses is a series of lectures, "Freshman Orientation," given by Dr. Findley. His hints on correct study and living greatly eased the strain of the Cooper Curriculum on us poor freshmen. But the Physics lectures by Professor Ball may be called the most theatrical

Except for the reports, the Physics Lab is well liked by the Freshmen.



course. Witness the impact of two large wooden balls in mid-air. We have often dreamed of seeing them miss and crash out the door into the hall.

For the purpose of starting a class organization, the various sections elected representatives. These men met in the Mechanical Engineering Lab indulging in miscellaneous horse-play and getting acquainted in the process. The election of officers was held, with the result that Mr. Gurfain of Section 2 was elected President, John Nicholson of Section 2 Vice-president, Karl Rothe of Section 4 Secretary, and as Treasurer J. Belikowich, of Section 1. The

A Freshman expertly manipulates a manometer.



other four representatives, Denny Schoen, G. Kline, Steve Pavelka and George Fox, constituted the Entertainment Committee, the first-named being Chairman. The Committee decided to hold a class affair, but at the time of writing the type of gathering to be arranged had not yet been decided upon.

Every worthwhile undertaking must have a philosophy and the Freshman Class of 1940 is no exception. As usual, however, it is difficult to define. A quick survey of the classes revealed these gems of mysticism:

"The first year at Cooper Union is like taking a cold shower in the middle of January, followed by a dry-ice rub-down."

"It is clearly a case of mass hypnotism complicated by delusions of grandeur."

"We are in a state of confusion in the approximate vicinity of the eight ball."

"Cooper is a good Tech School but try to explain it to your Y. L."

All things must come to an end, and the class looks forward to a happy conclusion of the year's work. We offer thanks to our instructors for their kind help and to the Dean for his words of encouragement. Although our store of knowledge has increased

Lecture notes are the thing for a rainy afternoon.



greatly, our intellectual horizon is ever-widening, and reveals fields of accomplishment unknown to us before. May the bond of friendship between us, fortified by mutual assistance and a common passion for learning, grow stronger with the passing years. And, may we continue towards our goal, momentum undiminished, ever facing forward, impervious to the depletions in our ranks, with but one thought in mind, to emulate the lowly postage stamp and stick until we reach our destination. Although many pitfalls are encountered and "a student's lot is not a happy one," we shall finish with the same enthusiasm we started our engineering career. However, present indications are that there will not be as many of us when we do finish.



The most important requisites for Chemistry Lab are a strong nose and a yen for off-color precipitates.

Ice, balance, gages, mirrors and lenses—these make up the Physics Lab.





The sophomore officers are R. Salmon, F. Quattlander, Harry Robbins, President, and P. Tobias.

DAY ENGINEERING SOPHOMORES

WE entered Cooper Union in 1935, totally unprepared for the severe burdens placed on us, after our nonchalant attitude in high school. At first aspiring, later perspiring; before we realized it, we were struggling to keep our heads above water.

Physics Lab reports to prepare . . . Descript problems, Analytics, Algebra . . . then quizzes! With tired heads rebelling against midnight study, the Christmas holidays found us writing against time, completing our back lecture-notes.

Spring came—new hope dawned. How we had changed since those memorable entrance exams! Resuming the struggle as the final exams approached, we studied Physics; we studied Descript and Algebra. Then we went to our final doom, with faltering tread and shaking hand.

Having completed the tests, and having bade each other farewell, we forgot about Cooper Union and homework and enjoyed our vacation. Returning in September, our breath came fast as we viewed the class-lists. O joy! O despair! The survivors consoled the disconsolate.

The forty-five veterans of the "Battle of First Year" now split into specialized fields. Less than half chose to study Chemical Engineering, about a fifth selected Electrical Engineering, with almost equal numbers taking Mechanical Engineering. The remainder picked Civil Engineering.

Upon attaining the relatively exalted rank of Sophomores, our first step was to organize the class. We elected Harry Robbins, President; Philip Tobias, Vice-president; Royes Salmon, Secretary; and Frank Quattlander, Treasurer. By this time we were well acquainted. Let us introduce some of our men.

The high-powered mathematicians and engineers: John Bratt, quietly efficient; Saul Aronow, precise and unassuming; Ted Berlin, taking the courses in his lanky stride; Bob Herzog, who takes nothing for granted; Dan Russ, you never hear much from him, but when he speaks, others listen; Charlie Blitz, who knows German inside out.

For the role of Damon and Pythias, we nominate Phil Tobias and Karl Schelles. Close friendships have their useful side, consider-

ing the time saved on homework and lengthy reports!

The most sociable fellow we know is Bob Brown; the quietest, Ed Quinn. The cutest (he won't admit it) is red-haired Ed Serveson. Our rugged individualist is Joe Schwartz. Besides being an M.E., he sports a Clark Gable mustache.

Last but not least, we give you Charles F. Pinzka, mathematician and mystery man. Charlie has brought new life to Cooper. He didn't memorize the log tables—that's kid stuff. His latest gag is an imitation of the great Steinmetz, smoking a pipe in class, and insisting, "No pipe, no Pinzka."

It should not be supposed that the Sophs only study. Many have joined the Pioneer Staff, working as news hounds, editors, or both. Harry Robbins is News Editor; on his staff are Saul Aronow, and Ray Bendett. Nat Richmond is Feature Editor, and Frank Quattlander is Manager of Production. All are gaining valuable experience, for who can say in what field a Cooper Grad will wind up?

This being a Presidential year, November fifth saw the usual crazy election bets paid off. George Everson faithfully carried out his wager, giving Dominick De Simone a free ride to the seventh floor. It's a long trip to the top, and nobody knows it better than George! Ed Serveson, meanwhile, carried a placard informing the world that "I bet on Landon."

In the Inter-class Waterpolo Tournament, the Soph Team played almost expertly, considering that none of us had ever played before. In one of the most clean-cut games of the year, the team defeated the Frosh, 5 to 2.

Dan Russ, Soph goalie, was brilliant with his terrific goal-line tackles, preventing several Frosh scores.

The Professional Aspects Period meant more to us, now that we had chosen our respective fields of engineering. Motion pictures were well enjoyed. One film by a prominent optical-glass manufacturer, was really beautiful. In one reel, a workman was shown catching heavy sacks of powder as they fell from the end of a belt-conveyor. We noticed that accidentally or otherwise, two sacks had been placed rather close together on the convey-

Fellow Civil Engineering students hilariously belabor each other with quarter-staves (oh, all right, range poles, then) to fill the time gap until the line of sight is no longer blocked by a ten ton truck trundling across the "campus."





An inquisitive Soph trying to find out what makes the gage tester work.

or. These heavy bags approached the perspiring worker, and he remained unsuspecting. It became apparent that we would soon see the unfortunate fellow buried beneath an avalanche of sandbags. But, alas, the scene changed. That's the kind of thing we have to put up with.

Professor Newman, head of the Chemical Engineering Department, taught us the why and wherefore of "Fuels and Combustion." Under his tutelage, the

course passed smoothly. At one time, however, he had us on the run. We refer to the time he gave us a continuous two-day exam. We wore the library staff

ragged hunting up information.

Inorganic Chemical Technology, the bugaboo of the Ch.E.'s, was ably expounded by Mr. Kunz. The high spot of the course was the design, by the students, of a pilot-plant for manufacturing Sodium Bisulphite. We often wonder just how long some of these factories would have operated before the manager "gave up the ghost."

Calculus was made as painless as possible by Messrs. Pickett and Lehman, steadily building up our mathematical background. For mathematical training, it is said that Cooper Union ranks high among the engineering colleges. After the homework we did, we can easily believe this.

German, the stumbling block of those who had not had the subject before, was taken care of by Dr.



Above: A Chemical Engineer eagerly waiting for an analytical balance to obtain its equilibrium.



The surveying party enjoys an outdoor bull session to decide who will tape the traverse prior to a pleasant afternoon class.

Mantz. How often we have awakened in a cold sweat, dreaming that we were being urged, "Repeat six times, please." In class, however, these words have brought forth many a hearty guffaw!

Professor Ball, lecturer extraordinary, demonstrated the basic laws of Electricity and Magnetism. In writing our laboratory reports for this course, we were ably assisted by the affable Professor Hauptmann.

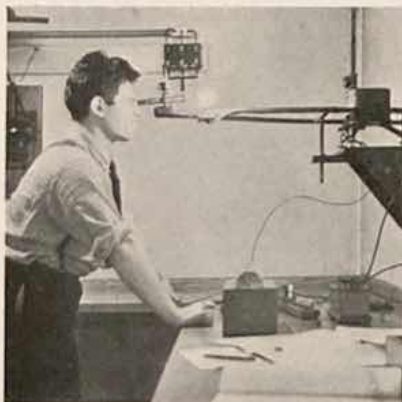
For the study of Mechanics, Professor Merritt was called upon to fill the role of both lecturer and instructor. Making us realize that our Freshman Mechanics was necessarily a series of generalizations and approximations, he set about to clarify the subject in our minds.

Mr. Garvey, genial Accountant, we shall always remember with a smile. His classes are numbered among our most enjoyable ones. We may forget after a few years how to prepare a three-party time-draft, but we shall always remember the look on Mr. Garvey's face when he walked in and found Charlie Pinzka balancing a stool atop a desk and two chairs!

Two of our intended four years of engineering education having been completed, we will need a long summer vacation to recover from the weakened state in which reports and quizzes have naturally left us. For next year we attack new engineering mysteries.



A Tech E. E. student deeply engrossed in plotting the loci of a few instant centers.



Squinting into galvanometer introduces sophomore to the niceties of Electrical Measurements.

The boys must have been up late the night before, because it couldn't be the lecturer who is serving as an anesthetic.





Tech Class Officers, Standing: John Gruol, Julius Agin. Seated: Daniel Ozsvath, Robert Egbert, Pres.

DAY ENGINEERING JUNIORS

THE fall of 1936 found the '38 Juniors back in harness again, more matured mentally and in fine physical condition from the long summer rest. There was a "Reunion in the Bowery," experiences were exchanged, friendships taken up, activities compared. It was like coming home,—the spirit of good fellowship pervaded everywhere. We had heard rumors, however, of the tough job ahead of us.

The first week of class work soon removed all doubts as to these rumors. The experiments in the Elementary Physics Lab, which had been so formidable during the previous terms, now seemed mere child's play when we were confronted by the advanced courses. Besides, we began to replace our former academic interest with a finer appreciation of the practical side of the engineering arts.

A Surrealist would enjoy drawing a composite picture of the typical Junior. He carries a trunkful of books, while a slide-rule protrudes fully two feet from his breast pocket. His head consists of a baling machine into which reams and reams of data sheets and solutions to problems are constantly being poured. In the background might be placed a few trees bearing integral signs. Further details may be left to the imagination of the reader!

Despite the heavy load of class work, many of the Juniors were also occupied with outside activities at school. First prize goes to Sheldon Lang, only third year man to receive the Gold "C," a rare event. Besides being Sports Editor of *The Pioneer* and President of the A.A., Sheldon has served on the Blanket Fee Committee and has been on the Varsity Basketball team for three years. Noted also is Al Russo, Business Manager of *The Cable*. His fine baritone voice and circus antics have likewise distinguished him.

Several Juniors have been elected officers of the Branch Engineering Societies. We have Miller and Rennolds, Secretary and Treasurer respectively of the A.I.Ch.E., Gaillard and McShea holding the same jobs with the A.I.E.E.

Also worthy of mention are Al Krasnoff for his work on the Varsity Basketball team, and Sol Tannenbaum, class politician, who served on *The Pioneer*. For final honors, we give you Matiuk, the only M.E. who is not on the Five Year Plan!

Saga of an Engineer

Listen, my children, and you shall hear
The fate of an embryo engineer.
He came in the fall of '34,
His knowledge was great, but he wanted more.
So "On to Cooper" his slogan became.
He didn't know then, (Was he to blame?)
The suddenness of a surprise exam,
The intricacies of a gear or cam.
How could he know (now don't ask me!)
The perils and pitfalls of I.C.T.?
But onward he struggled, never defeated,
The ranks of his classmates sadly depleted,
Through Mech. of Materials, Hydraulics, E. E.,
Differential Equations and Geodesy,
Phys. Chem. and Organic, Alloys and Metals,
'Till all he could think of was vectors and kettles.
Then with the final exams in sight
He began to realize with sudden fright
That though perseverance had put him through college
It also had shown him how he lacked in knowledge,
That he must continue plugging away
Even, perchance, till the Judgment Day.
Working out problems, never at peace
His habits of study too strong to release.

* * * * *

So if you would keep all your faculties clear,
Don't ever embark upon such a career.
Just go right on living, your mind at ease
And find satisfaction in what you please.

As we look back on the year, now drawing to a close, many incidents, amusing and otherwise, crowd our memory. We seem to recall, rather cold-bloodedly, the discomfort caused to the various instructors by Rennolds, Secretary of the A.I.Ch.E. and candid cameraman extraordinary. It was rumored that whenever he was in class, the professors





The Juniors perform the classic heat experiment on the Anthony apparatus.

would keep him in sight, and remain on their guard, lest he catch them in some unguarded moment. His success is attested by the results of his photographic sharp-shooting.

The annual doughnut-dunking fest, otherwise known as the Freshman Reception, was held this year with the help of some of the class. Under the auspices of the A.I.Ch.E., the frosh were shown how a lab experiment should not be conducted,

with side splitting results.

Our Class President, Robert Egbert, is renowned for his weight-lifting prowess. Bob's nickname, by the way, is Big Chief Wears-no-overcoat-in-cold-weather. Speaking of weather, the Civils found it ideal this year for their investigations in astronomy, although an outdoor examination left them all with stiff necks!

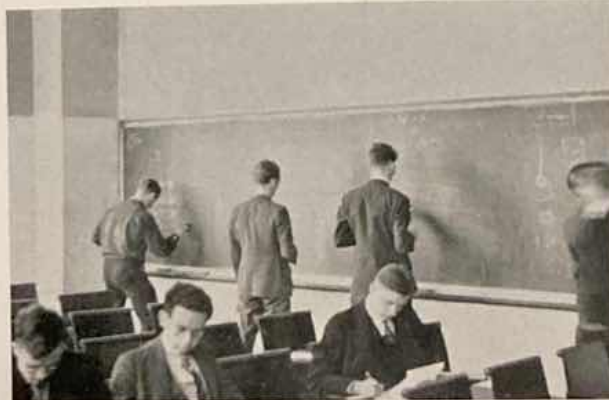
Laboratory periods were not always taken up solely by experimental work. For instance, Steve Duch used the Organic Lab for a weekly consensus for his forecast on the Lucky Strike Sweepstakes. Siesholtz delighted in "trucking on down" the corridors.

For perfection in coordination we nominate the three "G's," Goodman, Goldman, and Gruol. Jack Gruol's audacity in wearing three Roosevelt buttons in the Hydraulics Class will never be forgotten.

For a pot-pourri of the events of the year we offer: The sorry at-



No! This junior C.E. is not traversing. He's up a tree in Central Park searching for a good view of a blond nurse.



You positively can't win. If you're not sent to the board with a problem, you're given a brain teaser to do at the seat.

tempts to raise mustaches. "Piddling" in the Heat Power class. Trying to ask a serious question in the Economics Class, and being all balled up. Bill McShea's lecture on the cathode-ray oscillograph, which no one understood. Political arguments with Mr. Perez, between classes. Charlie Samberg's game of ping-pong. The memorable antics of that "slap-happy" pair, Weber and Knopfle. Stopping the path of a high pressure jet in the Hydraulics Lab.

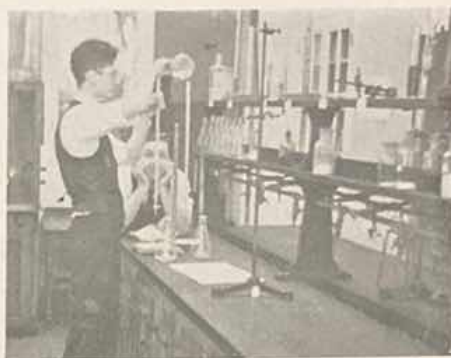
During the time of calendar convulsions, when a Wednesday was a Friday, and a Monday was a Tuesday, the M.E. section participated in an enjoyable Christmas Dinner. The affair was enlivened by informal speeches by sundry members of the faculty. Next year's affair is eagerly awaited by the Juniors.

One of the highlights of the program of the A.I.E.E. was an inspection trip to the Hell Gate generating station. The group was over-awed by the maze of equipment, most of it of heroic proportions.



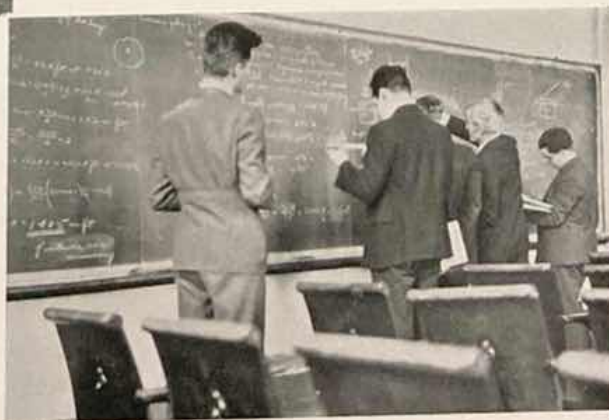
The Third Year Civils spend a great deal of their time in Central Park. In the Fall and Spring all is well, but in the Winter—br-r-r.

In the official catalogue this is known as a recitation. To the boys involved, it becomes a thorough workout.



This not a comedy team; just a part of the Junior Ch. E's hard at work.

After this year of struggle, we were able to appreciate the idea behind the "Saga of an Engineer." The rigid paths of mental discipline necessarily followed for the past three years had given us this same outlook. Nevertheless, we shall carry to a successful conclusion that which we have begun.





DAY ART SCHOOL FRESHMAN

AS "pre-freshmen" we had been told that there was a school in New York known as Cooper Union. We promptly got ourselves

pamphlets on the Day Art School, and on perusing them decided that we would all be artists. Unknown to one another we had, of course, made applications individually, and some of us were astounded to find that we were tabulated in the Art School rogue's gallery as numbers six hundred and thirty-five, six hundred and thirty-six, and so forth. Whew! Were there that many besides ourselves taking the entrance exam? We thought we'd never make it.

After taking the exam, the chosen children, some sixty of us ordained freshmen, were soon asking: Could you tell us where the Sixth Floor is? — Oh, you mean walk down this big hallway and turn to the right and we'll find an elevator? We found it. It was in a round shaft and run by an old fellow who hollered, "Not this time, another one will be along in a minute!" Somehow we did get up to the Sixth Floor only to find that our presence was desired in the Great Hall for registration. On arriving we soon tried to register, not realizing that it was such an intellectual process. It should have been easy; the upperclassmen seemed to go through it all right. Maybe it was just that we were Freshmen.



After having registered, another angle of school was hurled at us in the Great Hall. We were enveloped in an atmosphere of Blanket Fee, Pioneer, A. A., Cable, Dramatics, and Glee Club, and before we knew it we had signed away our lives to extra-curricular activities.

Then we entered classes. It was strange to hear talk of

movements in space, a dynamic spot, happy color, unhappy color, controlled space—Picasso.

Cooper Union is always full of surprises. One day we discovered the Students' Library, then the casting room downstairs, finally the Hewitt Building. Some of us found that Lincoln had spoken in the Great Hall, which we also had consecrated with our presence when we had taken our entrance exam. We were awed to find that the Foundation Building was built after Peter Cooper's own plans, and that he had had the foresight to build an elevator shaft before elevators were used. It was also the first steel-structure in New York. The Museum puzzled us. One could always find so much there, which one had never thought of looking for or ever wanted to find before. Another surprise was our discovery that the white closet in room 76 contained the pendulum for the clock that faces the Bowery! It will go on like this—surprises until we graduate.

One of the first requirements to be a good artist is to look like one by wearing a brightly colored smock. Murray Naidisch thinks a corduroy shirt is necessary for the full-fledged artist. His classmates suggest that he wash it.

Some freshmen are rather eccentric when it comes to having their fun. Take for example Rockwell Sabo. Beware of him. His friends are sadly aware of the fact that he takes to fire like a duck to water, or ham to an egg, or Mrs. Harrison to a fruit. His day is not complete if he has not given the hotfoot at least once to someone in his class. He recalls sadly the good old days when he poured kerosene on his victims' shoes and set them afire with a blow-torch, or when he put lighted matches in the ears of a sleeping friend. In his spare time, he has invented a portable microscope which will be patented he hopes.

"Always time for humor" thinks Julius (Ogelthorpe) Orgel, the chief comedian of 1B. His every day conversation runs like this. "We both went to the Gauguin exhibition yesterday except me. I didn't go, but I liked it so much I'm gonna Gauguin. Listen to me. Who was that lady I saw you with last night? That was no saw, that was a hammer!"

But Freshmen can be serious, it seems. The proof is Adelaide Bloom who is writing a novel on Ancient Greece with nine chapters completed to date. Others have gotten "extra" jobs at Wanamakers. They ap-



The hall at lunch time where Frosh girls gab and listen to the radio.

Even a senior enjoys helping a freshman remove paint, if it's a girl.





—What! I made this design? I forgot to put in some background spaces!

precipitate coming back to Cooper Union after going to school at Wanamakers. Making out sales checks can be involved, and one just can't make mistakes or else.

Do you remember the time when some of our boys had a grand time at the Marie Sterner Gallery on cherry and cookies? Or when someone discovered there were more married women in the Freshmen class than in the Senior Class? Or when some talent for Major Bowes was discovered in 1A, such as yodels and cock-crows.

As a bit of gossip, we haven't forgotten that Miriam Woods, Marion Reh, and Shirley Klein spent a week-end at Annapolis for the Victory Ball. We remember the stranger who called up Edna Donnelly as a friend of so-and-so. And then there's the boy from Cooper Union who saw a girl he thought was Florence Kushen at a dance. He went right up and talked to her, and it wasn't Florence. But he's taking the twin out anyway.

We heard that Morton Miller lives near Jim Braddock's training Camp in Sullivan County in New York State. The March of Time marched down to the cooperative Y.W.C.A. last winter where Margaret Campbell and Anna Newman are staying. Are you in the movies now, girls?

And then there's the freshman who decided he'd rather be a long-haired artist than a bald one!

A fortune teller in Colorado told Jean Steck two years ago that she would study art in New York. The idea was preposterous. But circumstances compelled her to come to New York where she became interested in art. She took the exam for Cooper Union and passed. A strange tale, indeed, but true. Ask Jean.

Miss Schutz, assistant design instructor, in the act of giving some help.



The class enjoys outside activities. Having subscribed to the B. F. many took advantage of the swimming pool and gym at the Christadora House. Elsa Bailey, sport enthusiast, was said to be the first in line for the medical exam.

The clubs have proved an attraction for many Freshmen too. Fencing has taken us by storm. Perhaps it's the shiny foils, or just the romantic angle. Monday afternoons several first year students may be seen jabbing at the wall with a "one, two, lunge!", or engaged in combat with an upper classman just for

the sport of this thrilling game.

Some turned to the Dramatic Club for their recreation. Several Freshmen have startled Cooper Union with their dramatic ability in the club's productions, for example, Elsa Bailey, Ralph Danzig, (who comes from far away Ohio), Seymour Klate, and Morton Abler.

The Glee Club is always a favorite of the students, and the Freshmen girls have not been slow in discovering what grand fun it is — and work, too, of course. In addition, the double quartet can boast of its Freshmen membership.

For the scientifically minded art student, the first year students discovered the Camera Club as an outlet for an inventive spirit as well as one's artistic ability.

Many Freshmen have joined in the gaiety of the dancing class. We have enjoyed our outside activities to the utmost. Such relaxation and a chance to know each other better, seems to have improved our class work also.

Murray Naidich has his own theories on recreation. He has turned to his beloved ping-pong.

As time goes by, we get to know each other better. Donnie Fazakas is teaching dancing now; she used to teach music—quite the artist. Morton Abler is a life guard at Rockaway. It's rumored that cooking baloney eggs is one of his favorite in-door sports. Our own Ruth Mueller has posed for several well-known artists. Among the musically inclined is Lucy Evelyn Owen, who's father is an organist and choir-master. She teaches Sunday School in Chattanooga, Tennessee.

At the first class meeting of the year, when everyone was still a stranger, and friendships were being made to last throughout our long stay at Cooper, class officers were elected: Seymour Klate, President, Morris Nadick, Vice-President, Shirley Sack, Secretary, and Gus Green, Treasurer. (Gus Green is one of the students who has done such grand cartooning for *The Pioneer*. He has also done work for theatres.)

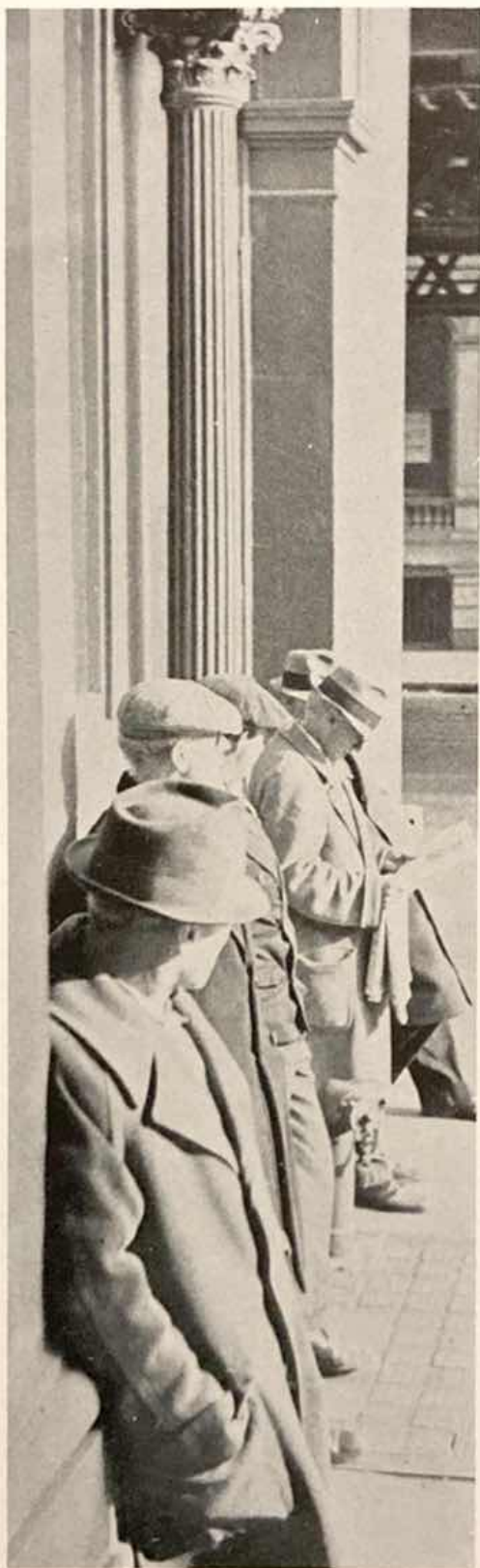
As the term progresses, we have become more and more worthy of the name "artist." Coats, vests, ties and the like have slowly been discarded. Strange colored shirts, fantastic smocks, dishevelled hair, and a temperamental mood have taken their place.



Lecture in an hour by Mrs. Harrison.
How strange this dead line effect on

Judging by the newspapers
and magazines before them,
freshmen also loaf.





STUDENTS OF NATURE



GRADUATES



F. Adams

R. Anders

I. Friedberg

S. Glass

WHEN the Civil Engineering Class of 1937 first met, each member had no realization of the personalities of his classmates-to-be. In that time, incredibly short, interminably long, the C.E.s have become, not merely classmates, but staunch friends and boon companions. They have learned to be serious of mind, yet capable of amiability and relaxation. **Fred Adams**, for example, is famous for his phrases, puns, and pantomimes, yet his classmates considered him sensible enough to elect him president of the Junior Year. Athletically inclined, he is one of the few possessors of the Varsity "C," through a berth on the basketball varsity, and class numerals for waterpolo. In the Fall he often comes to school with many scrapes and bumps—he says it's football. Hill-billy songs are his favorites while designing steel structures on his drawing board. When day is done, Fred can usually be seen headed for the B.M.T. with his constant subway companion, **Roland Anders**. We suspect that "Andy" holds a custodian's position in the Institute, for he is invariably the first to arrive in the morning. What amazes us most is his early completion of all assignments, seemingly to dash off, even structural drawings with a twist of the wrist. He claims he rushes his studies in order to have more time for bridge and handball, his chief pastimes. His speed knows no bounds, having once drawn up a complete set of plans for a cottage while his father was still closing the realty deal for the grounds. His latest conversion to the ranks of the "demons of alacrity" is **Isaiah Friedberg** from the South Bronx foothills. Although generally serious, his volcanic laughter often bursts forth in the classroom. He is well grounded in the fundamentals of hydraulics and opera, being the original one-man "Quartette from Rigoletto." He champions the cause of the circular slide rule, and came near winning a contest against the straight slip stick, only to lose out by the narrow margin of a folded-scale. Above all, "Fritz" is most generous, and always ready to lend a helping hand. Before leaving the serious minded group, meet **Sherman Glass**, whose deep, drawling voice signifies that a class conservative wishes to express an opinion. A true civil engineer at heart, he possesses a keen faculty for remembrance of structural details and their appearances gleaned from field trips. "Sherm" is athletic and sociable. He enjoys swimming, and his favorite haunt is the O.D.P. Fraternity House, which also harbors the auspicious personage of **Francis Lefebvre**. Although small in stature, "Frank" is capable of consuming enormous quantities of foamy lager, which however, does not in any way affect his speed and efficiency, especially in the laboratory. His absorbing interests are astronomy, photography, pinochle, and the piano. He has already gained technical experience in the field



of Steel Swimming Pool Design. **I. Leo Goldstein**, the star reporter of the class, covers all the branches of sport. Not satisfied with merely writing for the school paper, he accepted the post of Assistant Production Manager. Wittiness and a cheerful disposition are two of his chief assets, to say nothing of his prowess in athletics, having participated in interclass baseball and waterpolo. He intends to see the world during his life work in his chosen profession, Civil Engineering, but is willing to settle for a good position in his home town, New York. Speaking of traveling, there's the outermost outpost of Jamaica to be considered. From this forsaken corner of the earth comes our theory man, **Giles Green**. His logical and straightforward thinking gained him the Chancellorship of the Mu Alpha Omicron, the Scholastic Honor Society of the Institute of Technology. His frankness and his good-natured disposition were the probable causes for his election to class office for two successive years, and the current Vice-Presidency of the student chapter of the American Society of Civil Engineers. The dependability of "G. G." prompted us to place in his hands the responsibility of the graduation committees of Cap and Gown, and Key. Though he carries a full curriculum, with an honor course in Suspension Bridge Stresses, Giles still finds time to dabble in photography and "Coast Artillery Military Strategy." Also interested in detonations is **Frank Kelemen**, who gets a great deal of pleasure in the study of explosives, about which he can rave for hours. He is about the most active extra-curricular man. Besides earning his major "C" on the rifle team, he is the last survivor of Cooper's forgotten football team. He also played interclass basketball and waterpolo. Frank was even more active in the white collar extra-curricular jobs of the school. Since his Freshman year he has worked unceasingly to promote the activity of school organizations and teams. He was Secretary of the A.A., Business Manager of The Pioneer, Treasurer of the B.F.C., and the only one in the school to earn the silver "C" this year. He climaxed his school activities as Editor-in-Chief of this 1937 Cable. He is best known to the C.E. section as the class lawyer, "three problems on a sheet" man, and the "candid camera nut." Also active is **Daniel A. Okun**. Last year the secretary of the A.S.C.E., this year the Business Manager of The Pioneer and President of his Class and of the General Student Council. Not inactive in sports, he plays a good game of basket-

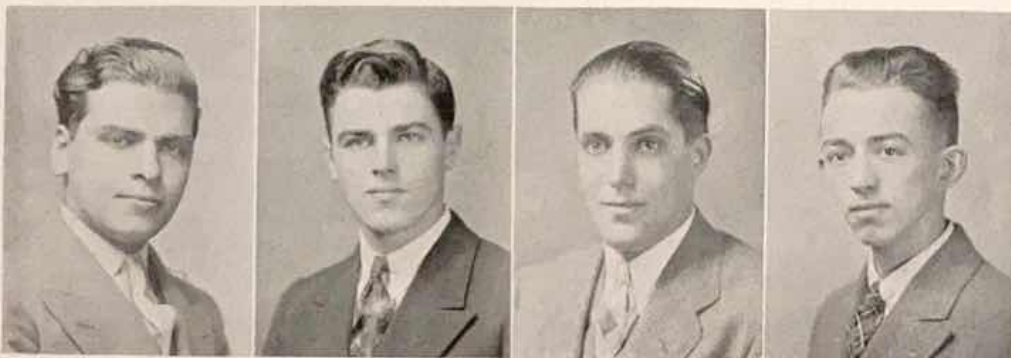


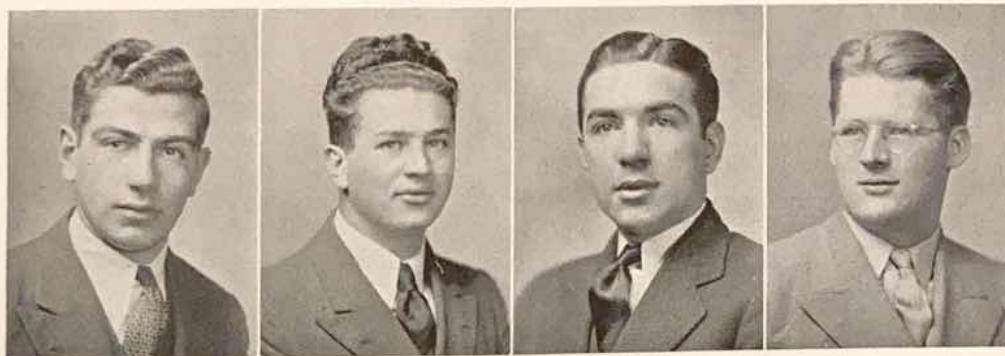
I. Goldstein

G. Green

F. Kelemen

F. Lefeber





D. Okun

S. Rosovsky

R. DeMasi

C. Kirby



ball and tennis. Moreover he excels scholastically being a member of the M.A.O. and taking an honors course in Sanitary Engineering. To the wonder of his friends, Danny likes the theatre. He sees many of the city's shows and advises the student body as to their worth through the medium of his weekly column in the Pioneer. Opera, however, is not his strong point if we judge by his singing. **Simon Rosovsky** expects some day to achieve recognition as an astronomer. Before coming to Cooper, Si attended Syracuse U. Jovial and congenial, he seldom ruffles his easy-going temperament. On the other hand, his aggressiveness is probably due to his early training, having held at bay with a toy pistol, three armed hold-up men until the arrival of the police. When asked to elaborate on this incident, Si's modesty comes to the front and forms an impregnable wall, under the protection of which, he beats a hasty retreat. He is characterized by his infectious chuckle, his

Syracuse accent and his wavy hair.

IT IS only in the last year that the Mechanical Engineering Class has become a unit. Previously the group had been in a constant state of flux, men dropping out or going to night school and newcomers being admitted from other courses. With the coming of the Senior year, however, all that has changed. The M. E.'s developed a superiority complex and became ready to argue their supremacy as a class at the drop of the hat. Their bull sessions became famous. Prominent in any such meeting is **Bernard Kleban**, the largest man in the Class,



with a booming voice and infectious smile that belie his austere appearance. He loves good music and good food, and considers the day well spent that includes a large steak smothered with lamb chops, eaten to the strains of Tschaiowsky's Fifth Symphony. Equipped with a definite philosophy of life, a keen sense of humor, and technical experience, Ben finds it easy to adapt himself to all conditions. His good friend, **Sanford Fox**, has the truly unique faculty for dominating any discussion with irrefutable statements that leave his opponents at a loss. He has a keen mind and can see further, per unit of time, into a problem than most students. Some day, after he graduates, Sanford intends to write a book on economics, his pet hobby. Somewhere bustling around is **Rocco DeMasi**, destroying our tranquillity with repartee and outlandish capers. This explorer from far off Staten Island plans to buy his own ferry boat. He now manages to struggle

to Cooper every morning on the sometimes reliable municipal scow. This lover of spaghetti, tests his knowledge of mathematical probability and human nature by participation in any and every game of chance, including taking exams without previous study. When the time is ripe for an adequate summary of any long-winded wrangle, **Elmer Kutzelman** steps in and settles everything. One of the two four-year regulars, Elmer is physically small but mentally alert. E. G. K. is the idea man of the Class as well as its A-1 handler of instructors and professors. His delight is to puzzle the Class by casually mentioning some apparently overlooked flaw and then to watch the fellows squirm while he is fully aware of the fact that nothing at all is the matter. Elmer possesses a thorough knowledge of photography. His positions as class officers and as Secretary of the A. A., his activities in inter-class basketball and waterpolo, and the Newman Club have helped him to become one of the best liked "Mechanicals" throughout the school. **Lyle Webster** is one of the most gentlemanly and cultured members of the M. E.'s his tastes running to the symphony, operettas, chess and bridge. His extra-curricular activities include Varsity Basketball, A. A. Secretary, and the Mathematics Club. Lyle's pet ambitions are to teach a technical subject and to manage his own firm. His neatness and flow of language augur well for these efforts. His closest companion is **Henry Wales**, a staunch Westchester Republican, whose smile and genial personality make him the best liked fellow in our Class. His outside interests: amateur radio, boating, and motorcycling, might make it hard for him to get his work done, except that his ability to work long hours is above that of the average Tech Student. In class, he never leaves a question until it is thoroughly understood to the last detail. But the real mystery of the Class is how he secures those correct results with his warped and battered slide rule. It must be his inventive mind. For kibitzing abilities **Martin Shalita** is incomparable. Yet, when an overdue report really has to be done his speed and accuracy is amazing. Marty lives in Brooklyn and personally believes it and Plymouth cars are the only two wonders of the world. His delight is working problems backwards. Even years at Cooper cannot deter him from his ambitions of teaching in an engineering school. Possibly he feels that revenge is sweet. However, while still a member of the Mechanicals, his humor and penetrating questions keep the rest of



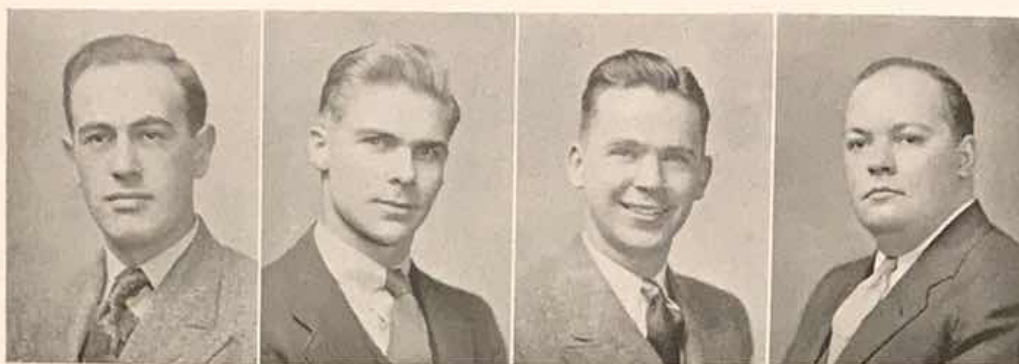
B. Kleban

E. Kutzelman

B. Last

M. Shalita





S. Swertloff

L. Webster

H. Wales

P. Ast



the boys on their toes and off his. The Class executive, **Bernard Last**, has capably directed the assignments and preparation of schedules for the NYA during his senior year. Bernie enjoys water in all forms, ice skating, swimming, and steam engineering but likes his amber brew only in the liquid form. Here is a fellow whose advice to the lovelorn is freely and cheerfully given. In addition to this, Bernie expects to do as much travelling as he can when he leaves Cooper. **Cornelius Kirby** is every inch an engineer. His ability to handle with accuracy any task he undertakes has won for him his classmate's admiration. Neil's activities run the whole gamut of the extra-curricular field. He has been Class President, Class Secretary, Chairman of the Student Branch of the A.S.M.E., Sport's Editor of The 1937 Cable, and active in intra-mural waterpolo. Neil's ambition is to sell engineering products. For an expert on extra-curricular activities, the man to see is **Sid Swertloff** who has accomplished more work than 99-44/100% of his fellow students. Witness his revival of the justly famous M. E. dinner. Sid lives in Brooklyn from where he manages to attend numerous Gilbert and Sullivan operettas and to bowl. His other activities include camping and model boat building. His journalistic abilities are well known for he has held practically every staff position on The Pioneer as well as serving on The Cable, BFC, and the Annual Dance Committee. After a number of years of the eternal piddling that seems to characterize much of the school activities, Sid resigned to enjoy the leisure of no deadlines. In class his sense of humor and practical philosophical outlook has become our sole salvation in the midst of a number of demon hair splitters. To complete the history, remember: "But, Professor, 50% Carryover"; "The flywheel problem, gentlemen"; "Summarize from 526 and up to and including 612. This is long, but you have a holiday."



BLEARY-EYED and weary, the '37 E.E.'s stand as examples of what arduous years in Cooper can do in the way of artificially aging humanity. The frequent storms of academic adversity have molded the individuals into an intimate, friendly unit, rich in diverse personalities. To present these slaves of ambition we choose as our first victim, nonchalant **Al White**. Al hails from New Haven where people eat peanuts in bed and know nothing of "polyadic tensors." His weakness is closing switches and any E.E. Lab period will find him tempted to sneak up upon

his unsuspecting squad and blow every fuse in sight. Al's great vice is indulging in those groans and grunts which he asserts is his unique singing style. He has an unusual gift of gab—he's the one who asked the Prof, "Are we limited to 10,000 words?" and his narrow escape at the hands of his compatriots has merely served to goad him to greater verbal endeavor. His ambition is to be an engineering executive within five years. As President of the day student branch of the American Institute of Electrical Engineers, he is to be commended on his leadership and efforts on behalf of the organization. As White goes so goes **Leo Schumann**, Al's perennial sidekick. The story is that Schumann first saw the light of day with Peirce's Tables in one hand and the solution of a third order differential equation in the other. When Leo is given a problem, he adjusts a few mental tumblers and out comes the answer—correct to three figures. He wiggles his nose when he thinks, and answers to the call, "Hey Schumie!" He is the undisputed class clown; but his major weakness lies in his expression of puerile puns. His passion is connecting up electrical apparatus and he can always be found in the lab struggling to disengage himself from a jungle of wires and leads. **Irving Margolis'** five scholarships are convincing testimony of the efficacy of fish as brain food for this handsome young gentleman comes from the herring-consuming Bronx. Keen of wit and quick to appreciate a joke, "Marge" has done his share in preserving the mental equilibrium of his class. Marge has tenaciously clung to a shredded bit of felt which he has kept perched on his head for the last four years. The so-called hat has been used for plugging leaks in the hydraulic lab, wiping grease stains, and filling radiators. He is haunted by a ghost called **Stanislaus Danko**, the class "short man." The two haunt the library poring over copies of last year's "Esquire." Stan is a dynamic little fellow—forever hurrying and bustling. A genial bubbling soul, he pauses every now and then to partake of sleep, eats, romance, and easy exams. He has won many scholarships. In the lab he tests live circuits with his fingers. His pained expressions are sufficient to inform his squad that the power is indeed on. We all know that little Stan has an outside interest who always types his reports and often makes him sigh. Another pair of boon companions is **Paul Ast** and **Constantine Constantinos**, the long and short of it. Connie is one of those tall lean fellows who must

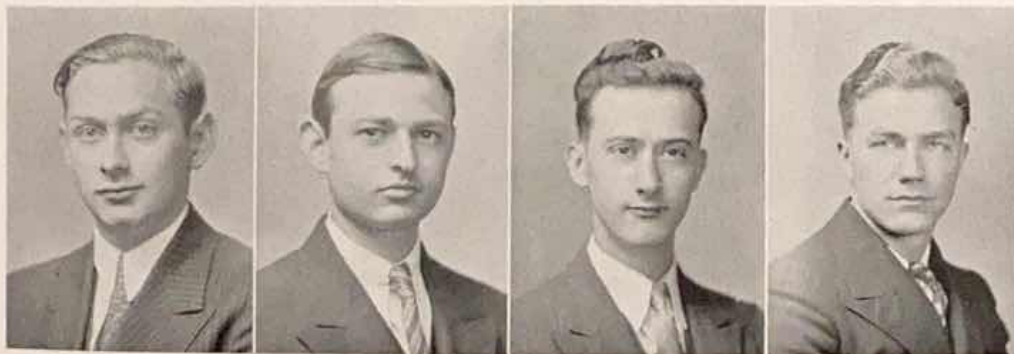


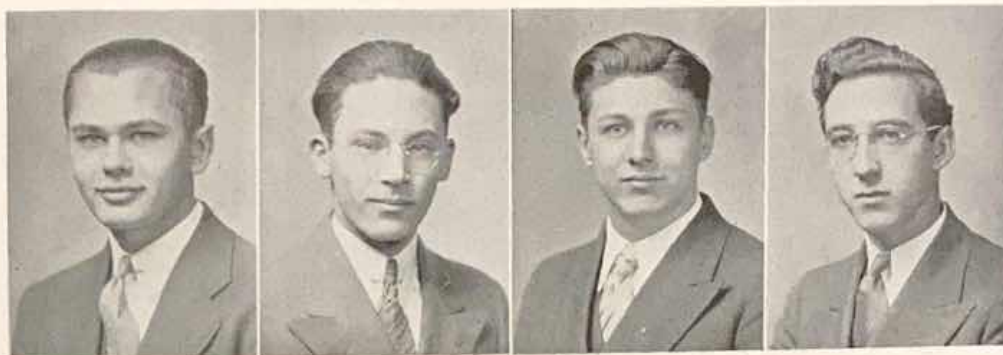
L. Becker

S. Clair

C. Constantinos

S. Danko





E. Daubaras

W. Feingold

J. Haas

I. Margolis

duck every time he gets in and out of the subway while Paul is short, round and sweet. He has a delightful sense of humour, his belly laughs forever cascading contagiously about the room. Paul's weakness is his appetite. He will never refuse anything as long as the food cannot crawl off the plate. Connie's hobby is plucking at the mandolin thereby wafting himself into the tempting arms of Morpheus. His avid interest in transmission lines is probably due to his own tall, lanky build so like the towers. Unlike the rest of us, he still adheres to the principle of rugged individualism and looks down on this practice of borrowing assignments ten minutes before they're due. And while on the subject of towers we may as well tour around **Edward Washileski** who looks down from the dizzy height of six foot three upon our poor scurrying figures trying to get around him. Always a willing worker Ed can often be found at the end of a laboratory period picking up current leads or looking for stray load losses. He is one of the cold-blooded nonchalant fellows ready for any emergency. Once when someone had accidentally opened a motor field and started the machine roaring to destruction, it was Wash who, remembering that he was the foreman in charge calmly strolled over, opened the power switch and thereby saved himself from having an awfully empty space in his wallet. In addition to being a confirmed radio fan he has a yen for the movies. Ed always thinks before he speaks and a rash opinion has never yet passed his lips. **Edward Daubaras**, the class short-cut man, has a genius for dodging work but nevertheless always manages to come through at the end of the year. The last one in, and the first one out—he is rarely seen except during school hours. Ed blames this habit on his radio station, W2CWE, which he asserts absorbs a great deal of his time and energy. His pet expression is "more or less." In the Lab Ed completes his experiments before the others have started and he likes to be foreman (the man who's responsible for putting the chairs back). **William Feingold**, as fine as they



come, is a firm believer in that old adage, "An apple a day keeps the doctor away." He is forever ferreting out the whys and wherefores of electrical mysteries and his answers are always correct. Wee Willie is another radio bug—give him a coil, an ammeter, and a burnt out tube and he's as happy as a lark. Rumor has it that he and a diminutive sweet harmonize very nicely. Jamaica, each morning, turns out a scurrying frantic figure, desperately rushing for the 8:47, with books grasped in one hand and a slide-rule in the other. When the weather is fair, **John Haas** is at Cooper at 9:45 regu-

larly. However, during the snowstorm last winter he spent two days digging himself out from the front porch. Well informed, he holds his own in discussion and never fails to air his views on politics. John is an exponent of orderly procedure and his is the voice in the lab that says, "The foreman always closes the switch." Armed with a magnifier and watermark detector, he is always prowling around detaching stamps from unguarded letters to add to his philatelic collection. His popularity is well attested by his election as a Senior Class officer. Hard working in all his undertakings, but cheery in disposition, he is valued as a scholar and a friend. Conscientious study and stores of practical knowledge point to a promising future for **Seymour Clair**. Inquisitive and with a candid turn of mind, he startles the profs with his innocent questions. Seymour takes sadistic delight in pointing out the errors in E.E. text books. Thermodynamics and moonlight are his favorite bores and his present passion has something to do with graduation. **Elias Shneyer** can often be seen striding through the halls at a terrific pace, striving to reach his recitation classes before they are over. Like the morning prayer we always hear the prof's familiar query, "Who's absent and has Shneyer come in yet?" Even an inspection tour of the Hudson Avenue Generating Station could not draw him out on time. This peculiar habit is compensated by his many fine qualities such as his unusually perceptive analytical mind. Thorough in all his work Eli persists in checking over everything before he acts. It took Eli just four years to decide whether or not to wear a hat, finally bowing to convention by buying a hat of the sweetest midnight blue. We chose **Leonard Becker** to disprove the unlucky thirteenth theory, for Beck has everything you can desire in the way of soft golden hair, innocent blue eyes, a clever mind, and best of all, an Emil Schweinberg Scholarship. He is unquestionably the all-around man of our little group and easily wades through such subjects as Advanced Mathematics and Electrodynamics. When asked what his ambition is, Beck disguised his aim in life with a simple answer, "To get ahead, of course!" Elected to Mu Alpha Omicron with Irving Margolis, both have taken the honor seriously by participating actively in the work of the several committees. Like the pioneers of old, it was our class that blazed the trail in the new E. E. curriculum. Challenged on all sides by tremendous amounts of work and new subjects never taught before in the halls of Cooper Union, it was we thirteen that survived the massacre. The perfect co-operation among the class members has cut down this work to the absolute minimum. This close interlocking has led to the development of many firm friendships although this has limited our active participation in many of the school activities. However, with the prospect of a great deal more time after graduation we can develop more fully such things.

S. Schulman

E. Shneyer

E. Washileski

A. White





E. Anderson

W. Bass

S. Berman

D. Deed

FOURTEEN scholars, the survivors of several strenuous and sleepless semesters spent in steadfast search for solutions to scientific snags, are about to sally forth into society as chemical engineers. **Ernest Anderson**—Little Eva to his friends—deserves much credit for his perseverance. He has managed to be on time even though he uses the Long Island R. R. in commuting from Rockville Center. Born under the Summation Sign, he was at an early age able to face the ever-numbing spectacle of Integral Logarithmic Functions with perfect equanimity. The personification of good scholarship and fellowship in ideal proportions, Andy has endeared himself to all of his fellow students. Practically brought up with Andy, we find red-headed **Donald Deed**, coming from South Nyack on the Hudson every morning. His batch of red hair causes many to wonder whether the sun remains fixed on Deed always. Don claims he is the world's greatest time-waster, and assured us that he would, while at Cooper, develop this faculty. But judging from his record, this is the only talent which has been allowed to lie dormant. Quiet and unassuming, Deedie has decided that the only fitting conclusions to his four years of commuting to and from school would be a trip around the world. Don has a reservoir of bum jokes, which he springs on the class from time to time and which are carefully gathered and stored for future use by his side-kick, **Alvin Schallis**. Alvin, the last member of the powerful triumvirate of Mu Alpha Omicron members, and Scrivener of that organization has been left unscathed by the course in "Artificial Mental Aging of Students," given in the Institute. His unbounded enthusiasm, especially at the most inopportune times, is a constant source of distraction to his classmates. Al has a tremendous capacity for doing work and holds the record for the longest of the long Physical Chemistry Reports—37 pages of solid reading matter. Speaking of reports, some people can use a typewriter or leave it alone, but **Saul Berman** must use one. Attempting to set his ideas down with bold strokes of his

mighty pen, he ends up with an unintelligible mess.

ANDY After four years of trying to decipher his heiroglyphics, we have given it up as a bad job. Even though his thoughts get far ahead of his handwriting, Saul is really one of our best students. His specialty is Organic Chemistry, and its application to the production of hyperzoopic acid. Another talent of Saul's is the ability to come late to the first-hour classes. If he continues to improve at his present rate, he may even surpass the similar abilities of Bass and Varnum. Saul's ambition is to become a successful chemical engineer and then



see the world. If opposites attract, this certainly explains the **Walter Bass-Berman** "combine." Walter's penmanship is typical Palmer method. If Walt is a standard product of Pittsfield, Mass., even the sharpest city slicker would have to be in rare form to put anything over on that town. With a level head and a gift of gab, augmented by a fine sense of humor, he has plenty "on the ball." Working for General Electric last summer convinced Walt that he'd do better "live-wiring" as a Chemical Engineer. Coupled with his other diverse aptitudes, he demonstrated a streak of athlete in his heavy six-foot frame. He earned himself a minor "C" by starring on the championship inter-class basketball team in his Junior year. **Frank Hashmall** lost no time in making a name for himself as a top student, winning the A.I.Ch.E. award for the highest scholarship among the Freshmen Ch. E. students and receiving recognition in Mathematics by copying the slide rule awarded by the Mathematics Club to the outstanding Freshman student in Mathematics. In doing chores such as securing steam tables or patents for the Class, his pal Walt will somehow manage to maneuver him into the job, but Frank retaliates by nominating Walter the next time anything has to be done. He longs to make a name for himself in Physico-Chemical research. His manual dexterity and mental equipment should insure success in this field. **Gerald Kaplan** disputes Frank's title to champion in the verbose and bombastic art. He can also entertain with his melodious singing, argue at meetings, develop Rube Goldberg inventions, and sleep in lectures with equal ease. The only thing which he has not done during his years at Cooper Union is to lose weight. He always remains the same, whether he studies all day and works at night or sleeps both day and night. But you must not get the impression that Jerry does not know what is going on in class. He is always ready to volunteer information and explain difficult points to the Class. And his inventions—his automatic filtration system, his cigaret-acid testing machine, and his special wash bottles—are certain to rock the world with laughter. He hopes that if he keeps on with chemical engineering long enough he will achieve his great ambition: to play with Benny Goodman's orchestra. If birds of a feather flock together, **Lawrence Pietila** has no business being near Jerry Kaplan. Aside from the fact that both commute from New Jersey, they are as much alike as Jerry's rendition of "When Did You Leave Heaven?" and Lanny Ross' version of the same song. Larry Pietila is modest and never says much, as he is saving his breath for that final 100 yard dash to catch the last train home. He is probably the record-holder for the number of hours in attendance at Cooper—he comes with the milk-

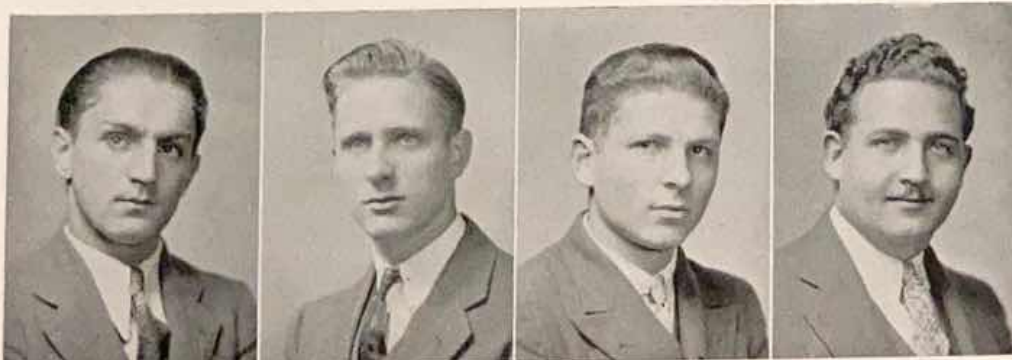


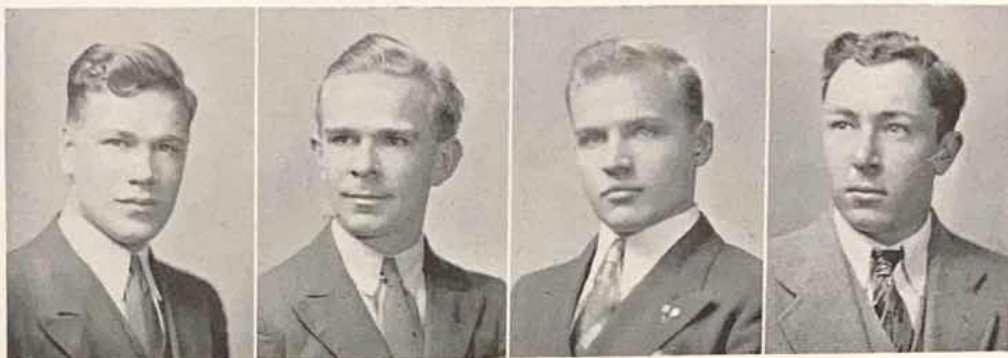
V. De Pierre

E. De Ritter

F. Hashmall

G. Kaplan





P. Kolesnikoff

L. Pietila

A. Schallis

E. Scheibel



man and leaves only when the night watchman insists that he go. Larry is a born chemist,—he drinks his coffee from a beaker and warms his hands over a Meeker burner. As a Senior he has led the A.I.Ch.E. as President of the organization, and has shown marked ability to assume responsibility. Another chemical engineer infected with the wanderlust is **Elmer De Ritter**. After commuting from Paterson for four years, he can always be content in the knowledge that he has gone about 24,000 miles, the distance around the world, between Cooper Union and Paterson, even though he never achieves his ambition to travel. Elmer says that his special talent is getting along without sleep. That must explain the way he has generally managed to keep one jump ahead of the Class. In one Class, however, he did not have to work much, and that was German. Outside of helping us poor ignor-

ants in translation, he had it pretty easy. Elmer is almost always found with **Vincent De Pierre**, his pal through four years at Cooper Union. De Pierre's favorite pastime is any kind of sport. This Brooklynite is always willing to start a handball game, or perhaps, if he feels reckless, to play a fast game of chess. Another hobby of his is mathematics problems, which he at times prefers to sleeping during certain lectures. There is only one man in the class who can outdo De Pierre in messing up experiments, and that is **Edward Scheibel**, one of the quietest fellows of our section. After four years of lectures and quizzes, Ed developed a remarkable fondness for laboratory work which is only

exceeded by his fondness for no work at all. A natural ability for loafing, such as Ed seems to possess, can only be explained by the fact that his free energy is practically zero and his entropy is already close to the maximum. Ed, known as the "Goon," to the rest of the class, is constantly getting in the hair of Pete the "Jeep" Kolesnikoff. **Peter Kolesnikoff**, coming from the wilds of Corona is the hardy pioneer of the class. An all-round athlete, he is a dangerous man with a rifle (even to the target). Pete has earned his letter on the rifle team, and on the interclass basketball and waterpolo teams. He is one of the select few who can get service in the lab by talking Russian to Nick. His favorite entertainment is dancing and music. With his undoubted ability as a chemical engineer and his qualifications as a Rifle Expert at Camp Smith, he should make good in the munitions industry. **Robert Umbdenstock**, the financier of the class, has been Treas-



urer of the Newman Club for two years and of the A.I.Ch.E. in his Junior year, then for a change he was elected Vice-President of the student chapter. When Bob is not working as Photo Editor of The Cable, he enjoys a few moments of leisure at the Fraternity rooms of O.D.P., where he can usually be found planning for his favorite summer sports, sailing and tennis. He has managed to garner sufficient points during his four years at Cooper to win his gold "C." He has ambitions of becoming a real Chemical Engineer. **Gerald Varnum**, the tall man of the class, has managed to carry on his school work in spite of the time he has devoted to work in the O.D.P. fraternity, several class officerships, Managership of the 1936-1937 Basketball team and intra-mural sports. Jerry has a faculty for doing his work at the last minute and has been honored by membership in the M.A.O. honor fraternity. He is well-liked by his associates, both students and instructors. With most of their work behind them and with only the incidental question regarding whether or not they will graduate this term to worry them, the men introduced above are in a high state of jubilation as they give the profs all the right answers. Seriously though, with the reputation of Cooper Union behind them, the members of this year's class in Chemical Engineering will start out in the practical world with a decided advantage over the many others entering this broad field. If past performance is any measure of future developments, the accomplishments of these men should add considerably to the many noteworthy contributions already made by Cooper men in the various phases of Chemical Engineering. The graduates of this class have been well trained into the profession they are about to enter. With all these behind them the individuals of this class are bound to be successful.

WHEN the old five year course at the Night School of Engineering was discontinued in 1931, it was expected that there would be no graduates in 1937. However, we present here two men who took a more leisurely route through school. **Bernard Horowitz** takes great pride in being a lone wolf in doing homework. His activities include the A.S.M.E., as well as various outdoor sports such as football and swimming. Bernard expects to hang his hat in Chicago very shortly. Another Night School graduate is **Jack D. Sverdlik**, who made a quick temperature change when he swapped his job with a refrigeration concern for a position with a gas utility. He distinguished himself in the A.S.M.E. by delivering a paper on the history and development of the gas industry. Jack divides his enthusiasm between badminton and the theatre.



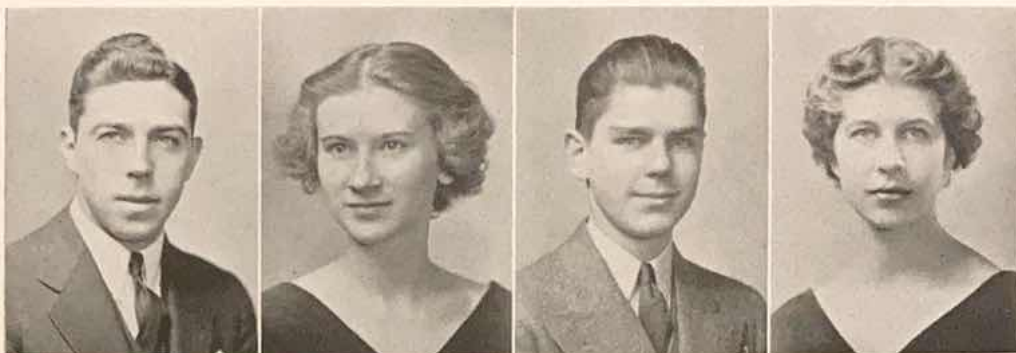
R. Umbdenstock

G. Varnum

B. Horowitz

J. Sverdlik





L. Ahneman

E. Allen

M. Anderson

R. Barnard



from top to bottom
Gundlach, Allen, Gorecki

WE, the Class of 1937, were Cooper Union's official guinea pigs, the subjects of many experiments. With us, the first co-ed class to enter the Day Art School, came Mrs. Harrison, who sets us straight regarding Creative Design. As Seniors, we considered the world well lost for painting and found ourselves, after four years of those enjoyable experiments, with a purpose in life, with many fine memories, and a great certainty of our worth. **Robert Gundlach**, President of our Junior and Senior Class, renowned for his touching stories in dialect, his rabid insistence on good design, his willingness to argue about everything, and his bad puns. In spite of all his activity, Bob gets a lot of work done. Last year he wrote a weekly column for *The Pioneer*. It was Bob's inspiration to have a Junior Party, the like of which had never been known in Cooper Union. This year Bob is Associate Editor of *The Cable*, trying to uphold the demands of the artists in that book. One of the most active members of our class is **Erica Gorecki**—Cooper's most artistic artist. Erica has been instrumental in organizing the Dancing, Glee, and Fencing Clubs as well as arousing the interest of our class in *The Pioneer* and *The Cable*. Secretary of Lambda Tau, she has received the Ex Post Facto key, and the Gold "C." Good music, dancing, and the theater are Erica's outstanding sources of entertainment. **E. Palmer Allen**, known either as Palmer or E.P.A., was acclaimed the most popular girl in her class. She campaigned to have the Blanket Fee passed in the Art School during her Junior year and was Art Editor of *The Pioneer*. As a Senior she wrote the column, "Lust For Art." Palmer was a member of Lambda Tau and received a Gold "C." Determined to become a good painter, she has no sympathy for "The Saturday Evening Post type of art." During lunch hour, Palmer could usually be found in the center of a group who gather to discuss art and enjoy her friendly personality. **Allison Scott**, better known as Scotty, is the lone senior to study Interior Architecture and Furniture Design. Scotty's dark head is often bent over scraps of colored paper from which will emerge with the aid of the paste pot a model house. She has a reputation for laughing easily, for one needs but look at her and her good humor bubbles over. She was Vice-President of the Junior class, and a member

of the Tek-Art Dance Committee, the Fencing, Glee, and Dramatic Clubs. This year she has been working as the Art Editor of The Pioneer. Working with her as Associate Editor is **Teresa Woodcock**. Voted the prettiest girl of our class, Terry could also be voted one of its most charming and keenly alive members. There is a serenity about Terry that is no small part of her charm. Besides her admirable personality, she has to her credit a bronze medal for Architecture and two honorable mentions for painting. She has been a member of the Glee Club for three years, an active member of Lambda Tau, a worker on The Cable and Vice-President of the Senior class. **Helen Rubin** is one of our most prolific and enthusiastic artists. Textile designing is her forte and special talent. She won a bronze medal and three honorable mentions at the annual exhibitions for her textiles and paintings. When the hooked rugs were exhibited last year at Sloane's, Helen sold two of hers. Next to painting, she revels in aesthetic dancing, enjoys concerts, movies, and plays. One of our greatest delights is to watch Helen bubble and squeal when an inspiration strikes her. **Harold Egan**, aloof and reserved yet not unresponsive to friendliness, has set for us an example of steady concentration on art and on art alone. Untempted by the delights of extra-curricular activities, he completes his four years with the same unswerving ardour of purpose as he possessed on the day he entered. He has been the recipient of awards not only at school but in the Beaux Arts mural painting competitions. Of all this group of aspirants to glory in painting, we place **Bernard O'Hara** highest among those most likely to attain this goal. The jolly Irishman has us all beaten when it comes to controlling black and white shapes and handling color. In addition to his rare ability as a painter, he writes with the same direct approach. Ask O'Hara for the best joke in the New Yorker and he can tell you in the wink of an eye. He hopes some day to be on the staff, for which he collects little spots of beautiful design to illustrate the pages. O'Hara gets a big kick out of **Frederick Castellucci**. In fact we all do. Freddie has the honor of being a wit and the most entertaining person in the class. A conversation with him usually ends up in a riotous verbal battle with Casty on top. His Senior year promises for him a real future



L. Donato

E. Gorecki

R. Gundlach

V. Kirishjian





B. Koeniger

F. Levy

A. Miller

E. Patton



MARSHALL

in art, for his work has a lyrical quality and strength that needs only development and study. One of Fred's favorite opponents in conversation is **Henry Meyer**. Painting and literature excite him, and our hero is often in a state of perplexity as to which to devote the most time. He is a good fellow and an interesting and convincing talker, with a clear mind, and a personality well spiced with ego. Like Henry in this respect is **Bernard Sacks**. Imbued with a dogmatic determination and belief in his own work, we cannot doubt his future success. Nor is his faith ungrounded, for his great interests in painting, experimental curiosity and strong intellectual approach have led to the creation of a number of paintings of real worth. With humorous eyes and a quiet smile, **Marshall Anderson** has moved unobtrusively among us for four years. Working quietly and earnestly he surprises us at intervals

by suddenly bringing forth the fruits of his labor embodied in some of the finest work done at Cooper. A calm serenity surrounds him, and from the peace of a mind at ease he looks with gentleness and pleasure at life around him. Marshall added a needed note of stability to a somewhat excitable Design class. **Willie Sorrells** suffers from the honor of being the favorite painter of the class for when one can no longer resist, one naturally annexes one of her paintings. At the Junior class entertainment, Willie pictured a fantastic jungle and, as a result, was besieged with requests for the mural. Willie confesses that one of her inspirations in painting is the ambition to become a nurse.



Georgette Seabrooke painted W.P.A. murals during her Junior year for the Nurses' Home of the Harlem Hospital but this year rejoined us to graduate. To execute these, Georgette had to study Architecture, but this punishment was offset by the enjoyment she received from painting. The fact that she sings, dances, and plays the piano when no one is around, she keeps as a deep dark secret. We expect **Peter Kaldor** to follow in the footsteps of the great radical artist, Orozco. Pete's dark and serious face is sometimes almost surprisingly lighted up by an unexpected bit of humor. Calm and dignified he talks in a deep rumble with neither excitement nor apathy. He has been interested in fencing for the last two years. For entertainment, he prefers "Wine, Woman and I can't sing." **Leonard Ahneman** is a mural painter with the habit of driving all over, to see exhibits. It's no problem for him to get around. He merely sputters off in his trusty Ford roadster

with two of his colleagues. He lists "hoochi-coochi," which we will pretend not to understand, as his favorite entertainment. **Saul Rosen**, the big fellow whose ping pong ball goes zipping into your lunch, is one of the school champions of that sport. No wonder he wins with his six feet of hulk behind the ball. Naturally quiet, Saul nevertheless can surprise us with a hilarious joke, but usually he is working hard. **Vahe Kirishjian** joined us from the Night School, and ranks among our ablest painters with honorable mention in Life Painting and in Commercial Design. Vic is black-haired and

pleasant with a quiet friendly personality. He and his friend, **Louis Donato**, are two of the smoothest dancers in the school. Louis wants to be an art director with plenty of time to paint. As evidence of his executive ability; he has been the President of the Freshman class, Vice-President of the Sophomore class, Secretary of the Junior class, Monitor of his Life class and the Painting Technics Laboratory. In his third year he won the Silver Medal for Advertising. Louis' sense of comedy was recognized by our class by choosing him as Master of Ceremonies for our Junior Party. The only other senior left with Louis in the Day Advertising Class is **Frances Levy**. She holds the unofficial but nevertheless undisputed penny matching title and could pay off the mortgage on anybody's farm through her skill. Her two big outside interests are photography and fencing. **Janet McCain** divides her time between Advertising, Decorative Design, and listening to our jokes. Being an appreciative listener, Janet is one of our favorite audiences. Then too, she is mighty easy to look at with her natural good looks and fastidiousness. **Anne Pracny** is characterized by her gracious manner and tidy appearance. Anne's ambition is to be a couturier. For three years, she has belonged to the Glee Club. Anne confessed that she is addicted to writing poetry and playing several instruments not too well. For entertainment, Anne prefers an all-Wagnerian concert, a Degas exhibit, and the Ballet Russe. Two dark-haired Señoritas give color to our Class. They are **Rosario Rivero**, better known as "Charito," and **Marie Sariego**, "The Rhumba Queen." Charito, who has lived in America since she was three, returned to her native land in 1934. Her greatest delights are entertaining her Spanish friends, baking, and bullfights. She has three ambitions, to design like Schiaparelli, to play castanets, and to dance like Pavlova. Marie enjoys dancing too, but not like the Russian danseuse. Her leaning is toward a bit of wicked truckin'. When the mood strikes her, she will play the guitar and sing more verses to the "St. Louis Blues"

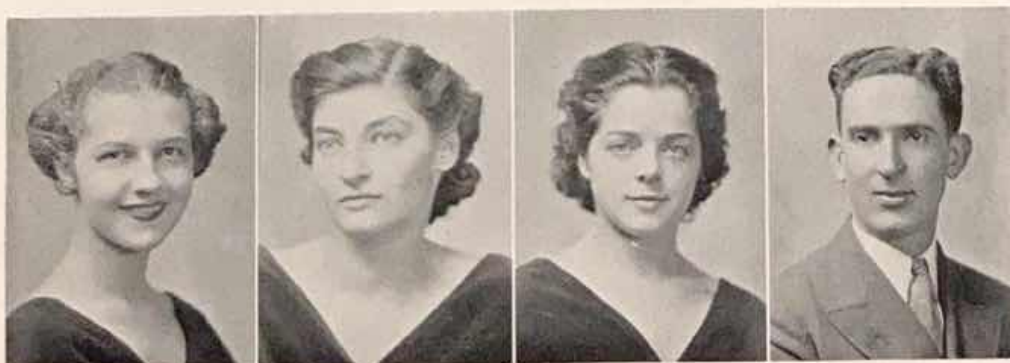


A. Pracny

C. Rankow

R. Rivero

S. Rosen





H. Rubin

M. Sariego

A. Scott

G. Seabrooke

than you have ever heard. She swims, fences and giggles with energetic zest, and inconsistently enough, believes that her mission in life is to be an A-1 commercial artist. **Charlotte Mantell** is particularly individual in her way of working, and in her thoughts. She delights in a good book or a good play. This year she has been chuckling over "The Circus of Doctor Lao" and recommending Elie Faure's fine "History of Art" as the most valuable she has ever read. **Florence Shillman** likes fashion designing intensely. A native New Yorker, she is the exception to the rule of rush and excitement that is associated with New Yorkers. Florence is a student of liberal movements, but spends most of her time studying what is and what is not smart in feminine apparel. **Renee Bernard** supplies us with a dash of sophistication, cultivated perhaps at Friend's Academy. Quite naturally she has chosen Fashion Illustration as her career. She insists that one of her ambitions is to cultivate a "dead pan." When the mood strikes her, Renee treats us to a hilarious recitation of "Madison Avenue." Incidentally, Bea Lillie, Dwight Fiske, dancing, skiing and entertaining people are tops with her. Thoughtful and always at ease describes **Robert Stanley**. One of the two graduates to study sculpture, he is the recipient of awards at Beaux Arts sculpture exhibitions, and place and mention in the sculpture class monthly competitions. Bob sings, in a Crosby-Stanley manner, in several quartets, and even over the radio. Charming **Eileen Patton** is the most gracious lady in our class. Petite and gentle, her smile is quiet and gay banter runs through her speech. The dark-haired blue-eyed sculptress is exceedingly clever. She won, with her classmate Bob Stanley many awards for her work. We will remember Eileen best by the chemise covered,



curly haired angels with which she fills her sketch books—these were used as decoration for our Junior Masquerade. **Betty Koeniger's** big interests in life are fashions and finding someone who can support her in a manner to which she would like to become accustomed. She was one of the first members of the Glee Club, has belonged to the fencing club for two years and is one of the most enthusiastic swimming devotees. **Charlotte Rankow** fills the bill for a fashion artist with a future as a fine painter. Her fashion work has an easy freedom, and her painting is strong and well organized. Charlotte has set us an example of hard work and serious concentration. She is an example of courage, and determination that few of us will forget. **Alice Miller**, a friend to Charlotte, is a little gal with an enormous amount of good nature. Underneath it all, however, Alice is hard working and serious. She loves music, plays the violin, attends concerts, and

dreams of owning a pipe organ. Alice belongs to the Newman Club, the Glee Club, and the Dancing Club. She enjoys swimming, hiking, and cooking. Clever **Ruth Allen** explains that her future was settled when she won a medal with a ribbon on in the dark ages of her existence. It was for a copy of Jessie Wilcox Smith magazine cover with an A.S.P.C.A. slogan on it. Finally she met with the rude shock of Harrison and Harrison. Now her motto is "You cannot eat your still life and have it, too." Her friend **Marion Heller**, is one of our most unassuming artists and one of our most unusually gifted. In her friendly way she has watched thoughtfully and tolerantly the boisterous good humor of the sixth floor these four years. Her friends find her a constant source of surprise. Her art work is strange and full of emotion. Like her painting her writing is of an emotionally imaginative vigor amazing in one so calm. Gentle **Lorrie Vanderbilt** is one of the few artists to study architecture. She is very studious and has learned to flash a most ingratiating smile on those who stop to talk to her and to watch her blue eyes twinkle. Though patient and extremely quiet even in speech, Lorrie has a firm set to her jaw that belies a first impression. Blue-eyed, naive **Elsie Fischl** can talk faster and think of more questions in two minutes than you can in half an hour. Elsie could save your life for she is a senior life guard, and there are few lads who can beat her at handball or bag punching. These are the few of her admirers who ever get to first base with this vivacious but indifferent Diana. With Elsie, our survey of this year's graduates of the Day Art School is completed. Each one of us is sincerely grateful to the school and the teachers for their instruction and sympathy. We have relished every minute of our education, and what an education it has been. We had hardly set foot in school when Mr. Purves armed us with notebooks and a purpose, and sent us out to surprise our tender eyes, ears, and noses with Union Square's very potent sights, sounds, and smells. Mrs. Harrison soon started us designing creatively; then Mr. Harrison introduced us to painting, for the rest of our school life all coped with the subtleties of organization, space and color. Now at the end of our last year, we are critically surveying the various tempting fields, in order to decide in what direction to turn our excited self-confidence. Undoubtedly, the large majority of the graduates will be successful in whatever field they enter into due to their excellent background.



F. Shillman

W. Sorrells

L. Vanderbilt

T. Woodcock





E. Fischl

W. Bassoff

H. Black

A. Bobkowski

THE Class of '37 of the Night School of Architecture is graduating after four years of conscientious study in good design and construction. Each member of the class is prepared to carry on his work in architecture with the same stimulating independence and the fresh outlook that has prevailed in school, and made the course valuable. The foresightedness learned here will enable these architects to use the many new building materials to raise the standard of public architecture. All the graduates are now looking forward to successful careers. **Vincent Bobkowski** is the class politician and one of the most active members of his group. His career at school is marked with many successes. In the Sophomore year, he was elected President of the class and aided materially in making the great Sophomore Dinner Dance a success. Always an ambitious worker, Bob gets to the center of the problem and solves it. He is perhaps best known for his barnstorming manner, his "Boss" Tweed speeches, his elbow-bending ability, his nick name "Butch," and his membership in the Lambda Sigma Kappa Fraternity. Another politician is **Irving Friedman**, our erstwhile class President. He has held some office each of his four years at school. For the first two years he was class Treasurer and for the last two years he has been President. His capabilities as an office holder and vote getter are indisputable. Aside from class politics and extra-curricular activities (he has acted as Blanket Fee Representative and Vice-president of the General Student Council) Irv is an active Fraternity member. Even with all this activity, Irving manages to get his work done well and on time. An entirely different person is **Walter Gentile**. Walter is such a dignified gentleman that it seems strange to address him without saying "Mr." He wanders through



museums with such zest that we have begun to believe that he goes to see his "Mummy." He is a stickler for higher education, and delivers highly intelligent orations concerning important international questions. In addition, detailed drawings are his special dish. Add to these abilities his impeccable use of English and his soft voice and you have a man among men. During the day, Walter teaches school, but even then his mind is usually on architecture. One time he sent his students out to play while he busied himself catching up on his class work which was due that night. Often seen with Walter Gentile is his friend **Victor Gorlach**. "Doc" Gorlach is harboring a secret passion to be a Railroad Engineer. The secret is out and the lure of the iron horse has him. Saturdays and Sundays, when the rest of the class is up to its head in home work, "Doc" is lying on his stomach waiting for the Flyer to come out from under the living room sofa. Seriously, Gorlach is

one of the most conscientious students in the class, and pursues architecture with all of his well known stamina and determination. Another good student is **Harry Kochman** who is "tops." Harry always hands in his plates and problems on time. He was very interested in class affairs until the Senior year, when hard work forced him into obscurity. He is now working as a window designer and doing some very good work at it. When time permits, which isn't often, Harry enjoys conversation and imbibing coffee and buns. A very good dancer, he coached the Soph dancing class in '35. He was very much in evidence at the Senior Hop and Dinner. Harry has a versatile personality and ought to get along well in whatever field of endeavor he chooses as his life's work. **Edward Gasser** is a man from the wide open spaces of Wisconsin, so it is natural that he should feel cramped in the close quarters of New York. Ed is a teller in a bank during the day, and because of this he is able to take a yearly vacation in the west. He spends this time roaming over the land in an old battered hulk. Ed is a furniture designer and his hobby is decorating interiors. We have an idea that he is planning to redecorate the Grand Canyon. He should cooperate with Ferde Grofe, who did such a fine job with his Grand Canyon Suite! Seriously, though, he has real ability. **Theodore Randmetz** is most interested in ballistics, soft lights, sweet music, Florida, and building. He has proved his love for music by his skill with the accordeon, and from the self-satisfied expression generally seen on his somewhat handsome countenance, he seems to approve of the slow but sure progress he is making in his other ambitions. When it comes to that rare quality of leadership, Ted is again found among those present. Randy accompanied the Soph dancers in their own amateur dancing class. The one girl in the class is **Muriel Kalbreyer**. Not only that, but she is a blonde too. She came into architectural class at the beginning of the year to study furniture design. She will probably use the knowledge she gains in her father's Decorating and Upholstering shop in Flushing. Muriel has made the class, if not the course, much more interesting to the architects by her originality and gaiety. **Joseph Marowski** is the type of student who says very little but accomplishes much. He usually walks around as though he doesn't understand the problem on which he is working, and yet when the plates are handed in, his are usually found among those ranking high. Joe is an engineering draftsman, who for some reason or

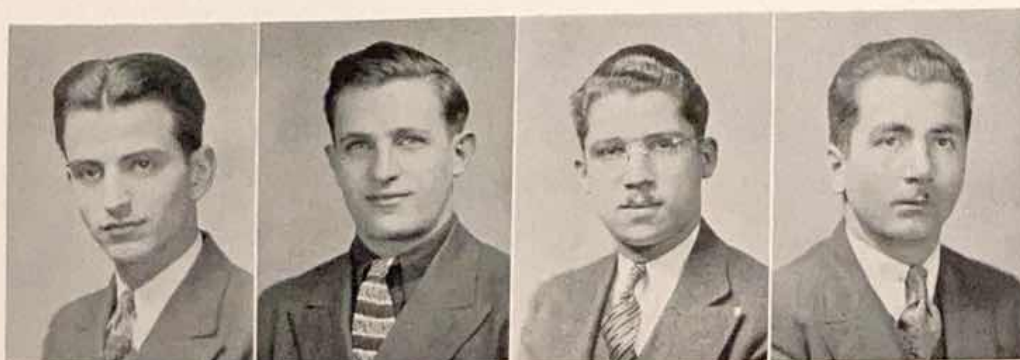


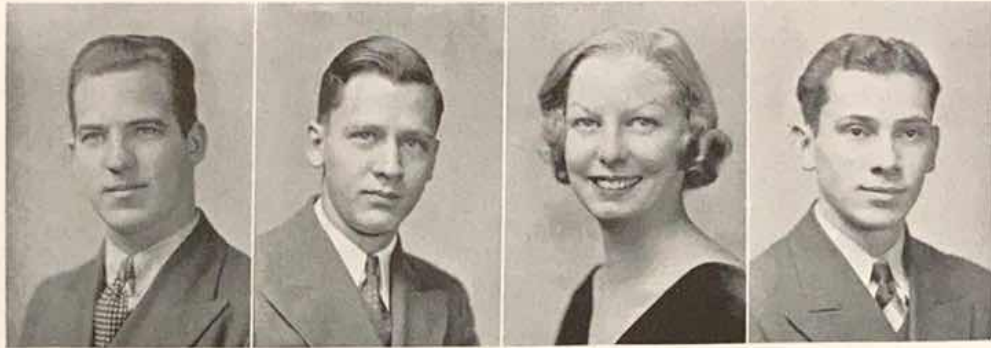
E. Briglia

L. Fleischman

I. Friedman

W. Gentile





E. Goerner

V. Gorlach

M. Kalbreyer

H. Kochman



E.H.C.

other wants to abandon the job and to enter the field of architecture. **William Bassoff's** pet activity consists of ceremoniously imbibing coffee and eating doughnuts at the downstairs cafe. Even so he has surprised members of the class at various times by bringing in work which belies his drinking (coffee drinking) proclivities. Occasionally Bill may be seen sporting Johnson & Johnson's best grade tape and bandage on his drawing hand. Not that we think he isn't trying his level best. After all, every one needs a rest now and then. If our classroom were full of men such as he, you could hear a bowling pin fall any night in the week. Overlooking his inclination to be an artful dodger we predict a bright future for this man. **Jacob Schwartz** can always be recognized by the amazing amount of clothes in which he bundles himself, the muffler wound around his head, and the pipe which protrudes from the whole get-up. **Jack** is always preceded by a pipe. And when it comes to pipes, his taste is all in his mouth. Always hungry, he is another nightly habitue of our doughnut refueling station. Jack comes from Richmond Hill, and often travels back and forth from there with **Harold Black** on the B.M.T. or the Long Island R.R. Blacky is so short that when he answers to his name in class the teacher invariably asks "Where?" Night after night he comes to class with a new (to him) joke on the tip of his tongue and just as often, if the looks on the faces of his classmates are any criterion, he ought to let the joke die of old age. Somehow though, in spite of this drawback, Blacky was able to garner various posts in our diplomatic



service, most important of which was Chairman of the Senior Dance Committee. And right there we found ourselves in trouble. Blacky had to mount a soap box in order to speak to banquet managers face to face. No easy task, even for a six-footer. He has done a good job though, and is still one of the most popular of the drawing board, "T" square, pencil and eraser devotees. **Saul Rollner's** favorite form of entertainment is vaudeville. He is a sketch in his own right and liable at any time to come forward with a pun even when there is no "raisin" for it. There is a rumor circulating that Saul is becoming interested in the finer things of life, that is, the fairer sex. At least he wanders around the room with a rather preoccupied expression on his face. As a matter of fact, there is really room for improvement in Saul's work—but not much. Saul's a modest fellow though, and not very sure how he'll make out as an architect. He is taking up "truckin'" as a sideline,

and can always be a success at that even if he doesn't change the course of world architecture. Still one can be a success at both. **Robert Miller** is a builder-upper of the first water. He travels from desk to desk boosting everybody's attempts at architecture, but woe to the unwary classmate who might ever so lightly suggest that Bob use his material for reasons other than drawing. Miller, we concede, is a handy man to have in the vicinity. He is so accomodating that he'll laugh at anything, even Blacky's jokes. Next to architecture, Bob is interested in amateur photography. On cold, frosty Sunday mornings he can be seen in the aquarium snapping turtles, snapping pictures we mean, not biting turtles. **Ralph Tettleswaig** sat by for three years and just did his work. But, upon becoming a Senior, his class spirit suddenly jumped. He became interested in school activities, and spent a lot of time organizing. However, he still worries about his work. A pet saying of his is "How will I ever get this problem solved?" Ralph is an eligible bachelor. A very good housekeeper, he prepares food, sweeps floors, and washes dishes with the technique of an expert. In addition Ralph is a very ambitious member of Lambda Sigma Kappa Fraternity, where he often exhibits his talents. These LSK members certainly stick together. Consider, for example, **Theodore Riehl**. He is a friend of all the fellows in spite of the fact that he is always surrounded by the sweet aroma of perfume. His work has always been of first-rate quality, and he has won a number of prizes during his school career. Good-looking and charming, Ted has a good sense of humor, which is always appreciated by his classmates and fraternity brothers. Another fraternity brother of Ted is absent-minded **Lloyd Fleischman**. If you ever want a job done, pass him by and you'll save yourself a lot of time. In class Lloyd is a good boy and always sits in the front of the room, for he is determined that he shall become an excellent draughtsman and renderer. He prefers chocolates to any other kind of food, even hamburgers, which puts him in a class by himself among the hamburger-eating Architects. **S. Vincent Schulman** is a very ambitious lad who is willing to give his all for the "Archs" as he so familiarly terms us in his weekly column, "The Arch Forum" in *The Pioneer*, which he has written for four years. Among other laurels Schulman has to his credit the unstinting effort he has shown in his work on the Senior Prom Committee. Employed by day in an architect's office, he spends the nights when he is not in school visiting his lady-friend. Consequently, he claims he has to do his homework in the few remaining hours of the night, but he says that it is worth it. But, as Vince always says, you are only young once in a lifetime.



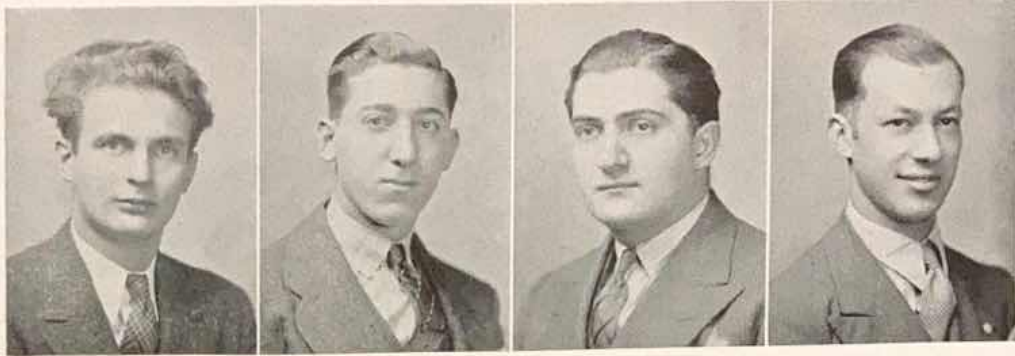
J. Markowski

R. Miller

I. Papiroff

A. Racz





T. Randmetz

S. Rollner

L. Schumann

J. Schwartz



SCHULMAN

Often seen with Schulman is **Norman Slonin**. A cheerful sort of chap, with a ready and willing ear, he is very good company. He is usually found hard at work, really accomplishing something. Norman is likeable and dependable and ought to make a good architect. He is without doubt the best dancer in the class. This terpsichorean proficiency must run in the family, for Normy's sisters are exceptionally good dancers. During the sophomore year, they came in to coach the dancing class. Altogether, Norman is a pretty nice fellow. The only thing for which we can never forgive him is his poor taste in so-called puns, riddles and jokes. A man of high ideals is **Leonard Trentin**, always managing in his inimitable way to win first or second prize for his designs. Very attentive, he hears all that the instructor has to say and is the only student who can stay at his drafting board for three hours. He probably influenced by the Indians, for Indians are his hobby and favorite topic of study. Last year his excellent design of a church was of such outstanding merit that he won first prize for it in a competition. His proficiency and hard-working, serious attitude have enabled him to secure and hold a worth-while architectural position in one of the best offices in the city. **Irving Papiroff**, a famed man in the annals of Cooper Union, is an artist of great ability and an architect of unusual imagination. His forte is modernistic building, and he talks in terms of glass brick, concealed lighting, steel girders, and all the other new technical developments in building materials. Of his social activities in school, there is little to say. "Pappy" comes in, sets himself down, and works to the end of the period. He always succeeds in getting his paper covered with an impressive drawing, and then leaves. **Edward Briglia** is a serious, quiet, unobtrusive fellow, who always manages to get his work done. He is a lasting friend when one gets to know him. Ed is one of the fellows who regularly go out for coffee and cake. Happily married, he is employed by the city. Some of us aim high but hit the target a good deal lower than the "bull's-eye." Eddie is different. He is content where he is and will probably go through life happily and complacently, undisturbed by the visions of glory and success that worry so many of us. **Joseph Mishure** first saw the light of day a little more than two decades ago on the far-off shores of Russia. He came to the United States, completed his elementary and high school education, and then came



NORMY

to Cooper Union to study art. After completing this course, he entered the School of Architecture. Now he considers that his education has gone far enough. Joe has always managed to win a prize or take an honorable mention at the termination of the year's work. At present, he is working for an architect, and hopes that he, too, will be one some day. Long years at Cooper have taught Joe that it is possible for a fellow to attend the Institute and still find time for a few hobbies. He has a bent for exercise, is interested in ballistics, and, in keeping with this, is an ardent nimrod. **Armand Racz's** activities have been very varied. Upon looking at him, one has to look again to make sure, for he doesn't look like the type. Recently married, he will continue to take life's problems in his stride with the fine partner he now has to aid him. A likeable chap, and one who has always been willing to lend a hand, he has become popular and well liked in class. His ability in financial affairs has been exercised by the years he has spent as Treasurer of the class. Armand is devoted to his chosen career and has recently become a Junior Member of the New York Society of Architects. He will continue going through life just as he has in the past, enjoying it, not working hard, and getting somewhere. **Hyman Wechter** is a chap who usually keeps to himself. He is employed by an iron contractor, but his heart lies in Architectural Drafting. This is proved by the manner in which he gets to work in class. He is a true Architect in the broadest sense of the word. He really thinks there is nothing like it and does some very inspired drawings. Hy is always ready to listen to constructive criticism, and expresses his opinion only if asked. He will be most happy when he can hang out his shingle as a Registered Architect. **Emil Goerner**, who is better known as "Dutch," is one of the most sociable fellows in the class. With his pals, he likes to spend his time exchanging jokes and imbibing the foaming ale. **John Zinner** is a typical example of the men at Cooper. He is diligent and ambitious, and although he works during the day, he still turns out a sizeable amount of school work. John finds working at school easier than at home where he is often interrupted by the insistent cries of his almost new baby. He bends all his efforts toward becoming a Registered Architect in his home town. Thus the Architects have been reviewed from A to Z. A little insight into their private and school lives has been presented, and a line or two here and there has told, very briefly to be sure, the ambitions and hopes of each. If the records attained by these men, and the well wishes of their associates mean anything, the realization of these ambitions is predestined.

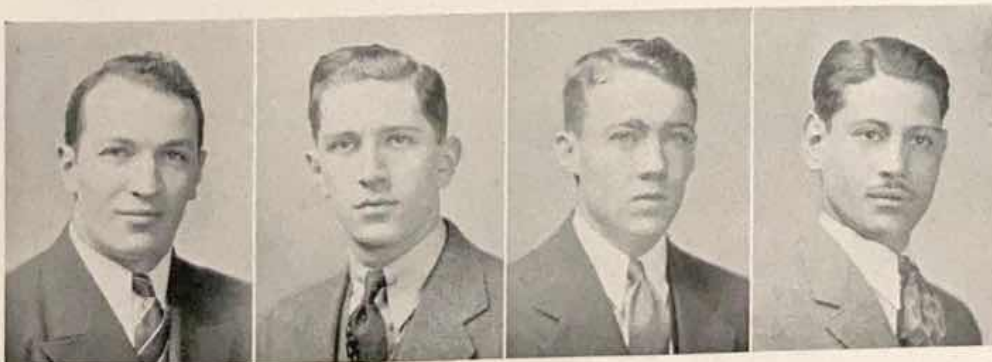


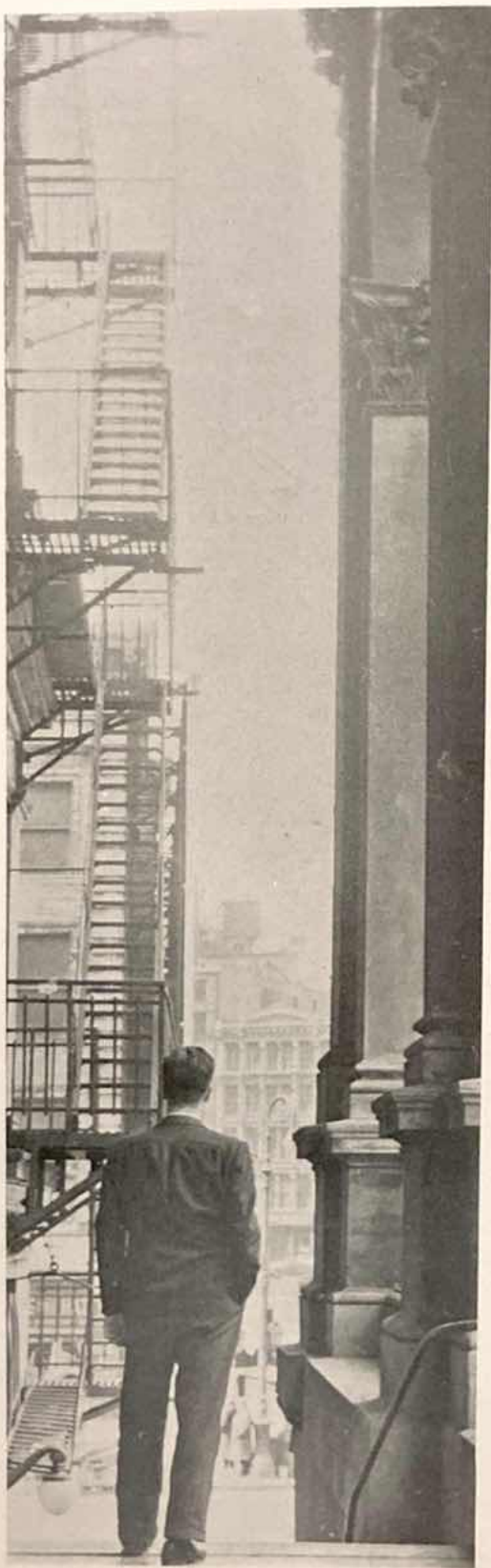
N. Slonin

R. Tettelswaig

L. Trentin

H. Wechter





AND SO, THE FUTURE



ACTIVITIES

THE LOWDOWN

It is an ancient Mariner

And he stoppeth one of three.

"By thy long grey beard and glittering
eye,

Now wherefore stop'st thou me?"

"**Y**OU want to know why I stopped you? Well let's go up to the Student Library. We won't be bothered there—students only use it to read Esquire—and I can tell you the whole sad story.

"When I became a Senior, I made a resolution to help at least one Freshman get as much out of the School as



"You want to know why I stopped you? . . . I can tell you the whole story."

he could, through my fatherly advice of course, and you seem to be the fortunate one.

"I don't know what mental picture you have of the ideal college, but I know that when I was admitted, mine was a confused vision of Gothic arches, ivy-covered walls, football heroes and foolish hats. Chasing from one building to the other and dodging

trucks under the 'El' soon dispelled most of that idea, but it was some time before I realized that I wasn't going to get my degree without a lot of hard work. I think it was the shock after the results of the first set of exams were posted that brought me around. There's nothing like a deficiency to make you sit up and take notice.

"Well, I buckled down to my studies after that, and since then I've managed to struggle through. The only advice I can give you about your courses is that you have to pass them, and you look like a bright boy, so you'll probably soon find out the best way of doing that — but don't be caught!

"After I had been in School a little while, I began to wonder about extra-curricular activities. You'll find some fellows here who do nothing but grind along week after week at their studies, but you have to do more than that if you are going to get the most out of your stay here. You have to get out and meet other fellows and take part

"You'll find fellows who do nothing but grind away at their studies."





"Soon the fraternities started rushing us."

in what goes on outside of the classrooms.

"I didn't have long to wonder, because soon after the frats started rushing us. That was swell for a while. Being invited to smokers and being addressed familiarly by upper-classmen made us feel very important, and we enjoyed it, but somehow the frats didn't live up to expectations for me, and since the rushing soon died down I never did get around to becoming anyone's fraternity brother.

"The next thing that caught my eye was The Pioneer, and I went in for journalism in a big way. There's nothing like the thrill of seeing your work and your name in print even though hardly anyone except yourself and the proofreader reads it. You can get a lot of experience and a lot of fun out of working for the paper, and if you have any inclination for that sort of thing, by all means go out for it.

"Of course the paper's not what it

"You get a lot of experience and fun out of working on The Pioneer."



used to be. The indirect censorship which has been clamped on it has pretty well stifled any sort of expression of thought or opinion. They take a spasm at the mention of anything of a controversial nature, and I became tired of trying to fight the restrictions they put on us, so I quit.

"However, before I left the staff sex reared its attractive head. You see, there was a pretty young artist who wrote a column on all sorts of



"They take a spasm at anything controversial."



"I used to have some tremendous arguments on the merits of great artists."

intellectual aspects of art that nobody understood. I used to have some tremendous arguments with her on the relative merits of Petty and Barclay against Renoir and El Greco. She had been studying in the Art School for two years then, and she had certainly formed some very definite opinions about Art.

"She entered the Day Art School with the idea of becoming a fashion designer, and she confessed it was



He went to the dances held up in the Art School.

something of a shock to her to walk into her first life class and be confronted by a real live nude Venus. I imagine her feelings were something like mine the first time I went to a burlesque show. At that time she was also wrestling with one problem after another in design and lettering, and she was wondering when she was ever going to have anything at all to do with fashion.

"One advantage she did enjoy in the Art School was a complete freedom of ideas. She could attend peace meetings and talk about politics without being threatened with expulsion, so she was pretty much amazed at the ignorance of the engineering student on any sort of intellectual subject. Maybe that's why she argued with me so much.

"She talked freely on politics."



"She was pretty enough to be elected to the General Student Council, and it was through her that I was then appointed to the Blanket Fee Committee and to the staff of The Cable. It's considered quite an honor to serve in either of these capacities, but I'm afraid that in spite of that I didn't enjoy either very much.

"As you probably

know, the B.F.C. handles the finances of the extra-curricular activities of the School. It collects the Fee from the students whenever it can and distributes the money as well as it is able. Ordinarily this is a hard enough job, but a little red tape and dissension with various ambitious students who head the activities make it a lot tougher. Being a bill collecting clerk, you have to put in a lot of hard work and take a lot of abuse, so it wasn't much fun. However, I got my Gold 'C' out of it, so I suppose I shouldn't complain.

"What's the Gold 'C'? Oh, it's this little 'C' in my lapel that you get for taking part in extra-curricular activities. A committee appointed by the Council gives you points for your various activities, and when you have enough you get the 'C'. If you have influence with any of the members, a good word can usually make up a couple of points. How do you think my little artiste got her 'C'? What's that? Yeah, I served on the committee.

"I think you'll find that there is a small group of students who take part in and run most of the activities. If you get in with this bunch you'll get pretty far in your extra-curricular activities. Who

knows, you may this group who run things."





"She was shocked on first seeing a nude Venus."

even rise to becoming president of the Student Council if your supporters are well enough organized.

"My work on The Cable was just that — work. It's no cinch to put out a yearbook that you can be proud of. Maybe I took The Cable too seriously. It spends a lot of money and it snubs The Pioneer, but it's only a glorified rogues gallery with a rotogravure section thrown in for good measure.

"When did I get the time to put in all of this extra-curricular work? That's just it, there isn't any time. It all has to be squeezed into odd moments in the evening and on week ends. The reason I'm looking like a shadow of my former sweet self is because I've been getting along with six hours sleep a night for four years. "The shadow of I've had to keep up my former self."



with my school work all the time too. "Well, I don't mind it because it has been a lot of fun. I've collected a lot of honors and friends and memories. You mustn't think that because I've been talking cynically I wouldn't do it all over again. There are compensations that come with being active, compensa-

tions of no material value, but worth a lot deep down inside.

"The activities offer you an easy way to become acquainted with the more charming characteristics of your classmates. You find out that the fellow who kept pretty close to his steam tables in class shows an entirely different side of his character when working in extra-curricular activities. The informal spirit that prevails while doing such things as amending the Constitution for the Student Council or readjusting the point system for the Gold "C" contrasts strongly with the stultifying atmosphere of classroom lectures and discussions. It is a relief to be in School and yet away from the supervision of the instructors.

"What do you think it's worth to go to the Annual Dance and be able to greet everyone by his or her first name? Do you think I can ever forget the easy camaraderie of The Pioneer, the long nights of planning on the Blanket Fee and working on The Cable — not for itself but for the friends it has made?

"I'm a Senior now. In a little while I'll be graduating and looking for a job. I'll be leaving the old School, but there are some things the School has given me that will always be with me. Yes, it's a great life—enjoy it."



GENERAL STUDENT COUNCIL

EARLY in the first semester of this year, Professor Brumfield, Chairman of the Faculty Committee on Extra-Curricular Activities (which Committee shall henceforth be known in these pages as the F. C. E. C. A.) called together the newly elected representatives of the various and sundry classes of the institution in order to form the General Students Council for 1936-1937.

With his well-known beaming smile and a sonorous voice he poured forth a volley of words calling to action the Student Council, with business left over from the Council of the previous year, and with new suggestions. Among the scraps left over from the previous year were large pieces of General Student Constitution to be ratified, and bits of embryonic Freshman Handbook, a pamphlet whose pages and contents were still in the stages of conception, and whose purpose was to enlighten the incoming students on the subject of extra-curricular activities.

The Professor also suggested that they adopt a regulation to the effect that each successive Council be chosen at the end of the school year, in order to enable it to function immediately at the beginning of the following term.

The General Student Council in session with Dan Okun, Chairman, presiding from atop a desk. It will be noticed that Gert Davidson, Secretary, is writing the minutes with her pencil upside down.



Election for officers was then in order, whereupon Dan Okun, Irving Friedman, Gertrude Davidson, and Bill Hornikel received the honors respectively of being chosen President, Vice-President, Secretary and Treasurer.

President Okun found business enough on hand to break the ice of bewilderment and the isolated feeling of the majority of G. S. C. members for one another. There was the Dance Committeeship, to be decided upon, and a discussion on what to do about the pending Constitution, a document planned to co-ordinate and insure the democratic procedure of all extra-curricular activities in all the schools.

A question arose whether a certain major activity had the right to take funds from the predetermined use of the Blanket Fee's monies for a final dinner. The F. C. E. C. A. could have decided, but desired the backing of the G. S. C. as representatives of the Student Body. The Council decided in favor of one dinner for all the staffs of the major activities. The decision was considered adverse to the hopes of the F. C. E. C. A., by certain members of the Council, who also considered that the Committee was trying to find some "yes man" qualities in the Council.

At approximately the same time the Council crashed through, sanctioning Cooper's participation in one of the Peace Conferences, which were prevalent in various schools on November 11. This, however, was given up owing to the fact that the Faculty Committee placed so many limitations on the freedom of the Conference.

Committees were appointed, and small tasks accomplished when the Council eventually realized the necessity of completing the old business of the Student Constitution. After a certain amount of discussion and explanation of the meaning of the various articles to the Council members, the Constitution was voted upon and passed with the intention of having a committee take it to the F. C. E. C. A. for final discussion. The committee met with Professor Brumfield representing the Faculty. He suggested some changes concerning the powers given in the document, and asked for better language in replacement for certain am-



... And this is how some of the members are active in important school affairs at the General Student Council meetings.

In the foreground, left to right, Ancona, Vanek, and Klate are pondering over one of the Council's weighty problems.





Looking out of the window prior to meetings is conducive to some of the bright ideas which dominate some of the Friday sessions.

biguous and unclear statements. The Council set to work again by getting together a committee, which functioned to the extent of rewriting the Constitution, clearly defining its powers, and eliminating such powers interpreted as encroachment on the freedom of action of the classes.

And so the General Student Council at the date of this writing still has much before it to accomplish. President Okun will look over his program for business of the day and will drone it out in his deep voice. Gert Davidson will look through her books, pull out scraps of paper from the fronts and backs and middles of them and they will, on being read aloud, form the minutes of the

previous meeting. There will be the usual dirth of members, due to the fact that many of them apparently arranged to have engagements conflicting with the usual Council meetings every second Friday. There will always be those obnoxious class representatives who talk too long on any given point, and possibly, though we hope not—the evasive diplomatic types. One or two may be tools in the hands of their class “political bosses.”

In the rear of the room in which the Council meets there are always a few non-Council Members who usually sit and listen. And perhaps one of these students may get up and donate a long harangue to the meeting, expounding on the virtues of his having partaken in a certain major activity, and would the Council consider him for a position on some committee. The tolerant Mr. Okun listens. It has been done before, and the orator, who fortunately was efficient, though perhaps dogmatic, was elected to the Chairmanship of the Dance Committee, by the vast majority of what was

The members of the Council also read *The Pioneer* to find out what's happened in the General Student Council.



then a green Council.

Perhaps the Council is no more than a noisy committee in the hands of the F.C.E.C.A. However, in the event of its forthcoming Constitution it not only can attain the heights, but will force itself to attain the heights, of a democratic tribunal elected by the student body to coordinate and insure the regulation of those extra-curricular activities which the students feel they want and need.

GOLD "C" HONOR AWARDS

AWARD COMMITTEE

SID SWERTLOFF, Chairman

SOL TANNENBAUM

WILLIAM VREELAND

JULIANA JANEWAY

TEDDY RANDMETZ



SILVER "C"

FRANK K. KELEMEN

1937 GOLD "C"

JOHN O. GUMBRECHT

ROBERT GUNDLACH

CORNELIUS KIRBY

DAVID J. KLEIN

SHELDON LANG

DANIEL A. OKUN

ALLISON SCOTT

H. A. SONBERG

ROBERT UIMBDENSTOCK

WILLIAM G. VREELAND

TERESA WOODCOCK

1936 GOLD "C"

ELINOR PALMER ALLEN

IRVING FRIEDMAN

ERICA HANKA GORECKI

PHILIP EDWIN HAGERTY

CHARLES ALAN HAUCK

FRANK KELEMEN

SID SWERTLOFF

FRANK VANEK



Sid Swertloff explaining the inner workings of the Award Committee to Frank Kelemen, Silver "C" recipient.

THE AWARDS

FOR several years Cooper Union has awarded the Gold "C", a small gold pin, to those students who are of outstanding leadership in extra-curricular activities. The idea of the Gold "C" originated in the Night School, but was adopted for the entire school by the

Blanket Fee Committee in the season of 1934-35. The award is based on a point system, in which all positions are rated according to their relative values and services to the school as a whole. The Silver "C" is a higher award, requiring three times as many points.

The only student to receive the Silver "C" this year is Frank Kelemen. The most active Senior, he is Editor-in-Chief of The 1937 Cable. This season he is Treasurer of the B. F. C., having served as a member for two years. On The Pioneer he has filled various positions, acting last year as Business Manager. This year Frank is a member of the Senior Hop Committee.

Another active Senior is Bob Gundlach of the Day Art School. He has been Class President for two years, President of the Dramatic Club and a member of the Glee Club since its inauguration. Last year he was Chairman of the successful Junior Masquerade and wrote a column in The Pioneer. This year he is a member of the Constitution Committee of the G. S. C. and an Associate Editor of The Cable.

Jack Sonberg, a Night Engineer, is Editor-in-Chief of The Pioneer this year. Under his capable management, the newspaper has surpassed all previous productions in usefulness to the school, readability, and make-up. The Pioneer Art Editor, Allison Scott, is one of the two girls to earn the Gold "C" this year. She has worked on the paper for three years, has been a member of the Tek-Art Dance Committee, and Vice-president of her class. Scotty also belongs to the Fencing and Glee Clubs.

The other girl to receive the award is Teresa Woodcock, the Assistant Art Editor of The Pioneer. Terry has worked for the success of the Glee Club since its beginning. She is Vice-president

of her class and a member of The Cable Staff where it has been found that her services have been indispensable to the production. Daniel A. Okun, an honor student, has worked on The Pioneer for two years. Last year he was occupied with the Advertising and this year with the Business Managership. Danny is President of the G.S.C. and Secretary of the A.S.C.E.

John Gumbrecht, Class of '38 in the Night School, has been active in the past year as Chairman of the B.F.C. and President of the Night Branch of the A.I.Ch.E. John has also been Secretary of the G.S.C. and President of his class. Cornelius Kirby, Senior Tech., is Chairman of the A.S.M.E. and Sports Editor of The Cable. He is a valuable player in the water polo meets at the Christadora Pool. In past years, Neil has been a representative to the G.S.C. and a member of the Freshman Handbook Committee.

Bill Vreeland became entangled this year with The Cable as Associate Editor. He is also one of the chief bill collectors on the B.F.C., as well as being a member of the Gold "C" Committee and President of the Night A.I.E.E. From the third year Tech School comes Sheldon Lang, active in the Sports department of The Pioneer for three years, and famous for his work on the Varsity Basketball Team. He has held the post of President of the A.A. this year, is a member of the Blanket Fee Exemption Committee and is one of its chief bill collectors.

A word should be said for Sid Swertloff, who received his pin last year and is Chairman of this year's Gold "C" Committee. Sid has been responsible for the fair distribution of the awards and, for the first time in the Committee's history, has left behind an account of the Committee's action on all applications, thereby enabling the succeeding Committees to work more competently.



Gold "C" Winners: standing—Robert Umbdenstock, Jack Sonberg, Sheldon Lang, Daniel Okun; seated—Robert Gundlach, Teresa Woodcock, William Vreeland.

BLANKET FEE COMMITTEE



Hard working committee members; John Gumbrecht, Lawrence Perez, faculty adviser, Kay Wythe, Frank Kelemen, Bill Vreeland.

AT the end of its second successful year in operation at Cooper, the Blanket Fee appears to have become a permanent fixture. In the resumption of its duties this year, the Blanket Fee Committee was confronted with the numerous difficulties which have associated themselves with this particular phase of student activity since its inception in the Cooper Union last year.

The collection of the funds was assigned to Frank Kelemen, Treasurer, who, with the aid of various others on the Committee, kept the Cooper Postman jammed with notifications regarding the "next deadline by which date your Nth payment must be made or else—:" This difficult task was completed in time to meet the accepted budgets submitted by the various student activities.

The Chairman of this year's Committee is J. O. Gumbrecht and he was ably assisted in completing the large volume of work by A. Ancona, Sheldon Lang, W. G. Vreeland, Irving Friedman, and the other members of the Committee. Most of the members were assigned at one time or another to work on the Exemptions Committee; at which task they spent innumerable hours in hearing the students who were financially embarrassed. The work of the Blanket Fee Committee will not be done until well after the school year is ended and the officers and members who have worked on the Committee deserve a vote of thanks from the student body for the time and energy they have spent in its behalf.



THE PIONEER



COOPER UNION STUDENT PUBLICATION

Vol. XVI

NEW YORK, N. Y.

CABLE No.

D. A. Okun Is Business Man.

Also Takes Part in Many Other Activities; Is President of Seniors

CHAIRMAN OF G. S. C.

Arranges Passes For Entire Staff For WPA Shows As He Reviews Other Plays

After serving as Advertising Manager, Daniel A. Okun, Senior Tech C.E., has been Business Manager of THE PIONEER for the past year.

Although holding a position of responsibility, Okun's activity with THE PIONEER has consisted chiefly in refusing requests for more pictures, eight page issues, and other such items that cost money and that the staff and editors seemed to find necessary for their welfare. To the editor's consternation, he always had too much advertising when there was plenty of hot news, but too few ads when things about school were slow.

Active in Other Fields

In his junior year, besides working for THE PIONEER, Okun was Secretary of the ASCE and played on the championship intramural basketball team.

This year, his last at Cooper, he was elected President of the General Students' Council and President of his class. As a result, Okun became an active campaigner for two of the clauses inserted in the new GSC Constitution, limiting a student to participation in only one major activity and establishing an improved election system.

Also Play Reviewer

In addition to taking care of the business end of THE PIONEER, Okun also succeeded in getting tickets for the whole staff for the Federal Theatre Project presentations. He, wise guy, went to see the other plays on the Broadway stage.

Editor-in-Chief



H. A. Sonberg

D. J. KLEIN IS ASSOCIATE OF PIONEER HEAD

Served as Head of Feature And Production Staffs In Past Years on Paper

Having served a two year apprenticeship on THE PIONEER, David J. Klein was elected Associate Editor last year. His work has been of the un-honored and unsung type, for his main efforts were devoted to carrying out the plans outlined by the Board of Management. In this he has had the able cooperation of Jerry Sanders, the Managing Editor.

Emergency Writer

In addition to his regular duties, Mr. Klein has been the emergency reporter and copy writer of the staff. Was Okun unable to review a play? Klein went in his stead. Was the "Lust For Art" copy misplaced? Klein wrote a column.

Mr. Klein has also been Production and Feature Editor of THE PIONEER in the past.

Klein was elected to the Chancellorship of Lambda Tau, THE PIONEER honorary society, at the beginning of the year.

Sonberg Made Pioneer Chief

New Staff Head Elected By Unanimous Vote At General Conference

Editor Faced Difficult Task in Organizing Smooth Running, Cooperative Unit

After a year's absence from THE PIONEER, H. A. Sonberg was elected by the staff to the position of Editor-in-Chief of the school newspaper.

He was faced with the immediate problem of organizing a smoothly working machine in a few weeks time in order to meet advertising contracts. The preponderance of raw material and his unfamiliarity with the abilities of the experienced staff members were severe handicaps.

Active as Freshman

Mr. Sonberg who is a third year Chem. student in the Night School of Engineering has been active in extra-curricular affairs since his freshman year. He served as a member of the first year council and was later appointed chairman of the Frosh Feed committee.

In his next year he became interested in THE PIONEER and rose from staff member to Managing Editor. He was one of the founders of Lambda Tau, THE PIONEER Honor Society. At that time the Blanket Fee had not yet been introduced and the publication of the school newspaper required even greater sacrifices of time and energy than at present.

Democratic Control

Mr. Sonberg believes that the paper will best serve as a medium of student expression if it is democratically administered. It is his contention that the paper depends on no one individual but is the result of the combined efforts of the entire staff. As a result of his hard work and the cooperation of the staff, THE PIONEER has consistently improved with each issue.

The Pioneer

A WEEKLY PUBLICATION

COOPER UNION



Published by the students of the
Institute of Technology, Day Art School, Night School of
Engineering and Night School of Art,
which comprise

The Cooper Union

For the Advancement of Science and Art

1936 Member 1937

Associated Collegiate Press

Distributors of

Collegiate Digest

BOARD OF MANAGEMENT

H. A. Sonberg **Editor-in-Chief**
David J. Klein **Associate Editor**
Daniel A. Okun **Business Manager**

EDITORIAL BOARD

Jerry Sanders **Managing Editor**
Harry Robbins **News Editor**
Marvin Weiss **Night News Editor**
Ed. Hoffman **Saul Aronow**, **William Feingold**,
Ted Berlin **S. Vincent Schulman**
L. Leo Goldstein **Sports Editor**
Ray Bendett **Photo Editor**
Allison Scott **Art Editor**
Lorrie Vanderblit, **E. Palmer Allen**, **Gertrude Davidson**,
Camille Marten **Teresa Woodcock**
Nathan Richmond **Feature Editor**
Frank Quattlander **Production Manager**

BUSINESS BOARD

Sol Tanenbaum **Advertising Manager**
Sidney Deutsch **Night Business Manager**
Norman C. Brand **Circulation Manager**

BOARD OF CONTROL

H. A. Sonberg **Daniel A. Okun**
Frank Vanek **Peter Kalder**

Prof. Norman L. Towle, Faculty

Looking Backward

A newspaper without an editorial policy is a rudderless ship. If the power of the press is to be measurably effective some defined course must be established if only to insure a consistency of attack.

Yet the formulation of an editorial policy is not a task to be approached without misgivings. Honest scholastic journalism sets as its standard the creation of an intelligent student opinion and the staunch defense of undergraduate interests. Unfortunately these interests are often at the mercy of individual interpretation and the resulting pres-

ures force even the most sincere editors to compromise their intellectual honesty. The position of a student newspaper thus becomes one of slow travel along a narrow path constantly beset by philosophic frustrations. At best a deft touch is needed to maintain an upright position between the various surging interests.

A Factor In School Progress

With these limitations we can look back upon our work and feel justifiably proud of our attempts to guard student interests. We have carried on campaigns for reforms; we have accepted and made criticisms; we have been a force in the school; and above all we have continually experimented with format, style, and type composition so that each succeeding issue of THE PIONEER has contained some improvement over its predecessor.

It has been said that the best measure of success is success itself. On this basis, even a cursory glance through our back issues reveals to some extent the result of our editorial pressure. We succeeded in persuading the A.A. to hold an election in order to rectify an unconstitutional situation; we were instrumental in the appointment by the Student Council, of a committee to plan a more representative voting system; we have kept the students somewhat acquainted with the rest of the scholastic world by means of the Collegiate Digest Rotogravure Section and through our various features; we have encouraged student participation and support in the Sunday Gym, School Socials, Sports, Clubs and other extra-curricular activities; and we were in part responsible for the decision of the Board of Trustees to install a Unit Operations Laboratory, since their action followed closely upon our news story and editorial with reference to recognition by the ECPD of the Cooper Union courses in Mechanical, Electrical and Civil Engineering.

Value to Staff Members

Lastly, we must not forget the benefits derived by the staff members. In addition to the normal social and literary development of the personnel there also enters the factor of character building. The weekly responsibility, coupled with the necessity of calling into play the latent initiative and ingenuity of each editor and reporter, is universally accepted as one of the finest character-building processes. Were there no other justification for THE PIONEER, we would offer this as a *raison d'être*.



ABOVE: Managing Editor Sanders setting monotype for some headlines of THE PIONEER. Fortunately, headline type is the only type that necessitates handsetting. As it is the job is tedious enough on a production that comes out in a specified time.



ABOVE: Photo-Editor Bendett, seated, deluged from left to right by Robbins asking for copy, Sports Editor Goldstein inquiring after something sporty, and instructions from Editor Sonberg



ABOVE: Associate Editor Dave Klein "dummying-up" with Managing Editor Jerry Sanders. Dummying-up is the process of pasting dummies (no connection with pugilistic practices editors use on stupid reporters) or pasting the proofs of articles in their proper places on the various pages.



Before going to print, the "research" staff of the paper finishes by looking over old PIONEERS and exchanged college papers for some of the news that comes hot off the press.



ABOVE: Some of the boys on the staff attempting to get some expense money from tight-wad Dan Okun, Business Manager.

Judging by the above picture, newspaper work takes such concerted effort that the girls don't receive any breaks from the fellows.



RIGHT: Weinstein and Tannenbaum though on the Business Staff don't limit themselves to this field. They find time to write a few lines for each issue.

BELOW—If it were possible to show a motion picture here, the continuation would be an irate watchman in the act of bouncing headline writers out of Room 6 of the Hewitt Building at 2 A.M.



Pioneer Men Do Work Well

Cooperation of Entire Staff Insures Good Production Throughout Year

THE PIONEER staff this year has been one of the finest in the history of the newspaper. Jerry Sanders, the Managing Editor, has been responsible for the layout and general make-up.

Harry Robbins and Marvin Weiss, Day and Night News Editors respectively, have done a fine job of handling their newshawks. Saul Aronson, Ted Berlin, and Photo Editor Ray Bendett covered the general news and Gert Davidson reported on the activities of the General Students' Council. Ed Hoffman fraternized with the fraternities.

Staff Editors Work Hard

The sports page was under the supervision of I. Leo Goldstein, while the art news was capably overseen by Allison W. Scott, with Teresa Woodcock as her assistant. Lorrie Vanderbilt viewed the exhibitions for Scottie. General art school news was reported by Camille Marten. E. Palmer Allen "lusted for art" in the interest of the art page.

Nat Richmond, in the guise of Feature Editor, had as his columnists: dramatic critic Dan Okun, film reporter Gregg Brown, and book reviewer Harold Dorfman. Will "Collegiana" Feingold supplied humor and Andre Dury "saw by the papers."

Same Staff Next Year

Frank Quattlander, with a meager staff, performed his duty as Production Manager in his own quiet, painstaking manner.

The Business Board contained Sol Tanenbaum as Advertising Manager, Sid Deutsch as Night Business Manager, and Arnold Brand as Circulation Manager.

The production of the paper next year should be even more efficient than it was this year. The reason is that the staff will be practically the same as the one which formed this year's newspaper.

The few vacancies created by graduation or other causes will be filled during the first weeks of the new school year.

FIRST LAMBDA TAU FEED IS BIG SUCCESS

It was the night of May 2, 1936 and all THE PIONEER staff were there. This was, indeed, the staff of the 1935-36 publication and the event was the annual Lambda Tau Dinner given for members of THE PIONEER.

All had gathered at Nikolaus Restaurant on Second Avenue near Sixth Street. The proofreaders were there, as were the editors, the reporters, and even the Board of Control. Prof. Towle honored the group with his presence.

"On With the Food!"

The crowd dillied and dallied, waiting for the latecomers. Finally up spoke one F. K. Kelemen, chairman of the dinner, "Let's eat." So enthusiastic a response met his words that he became bolder and cried "On with the food!" All accepted his command.

With that "ole debbil" hunger satisfied the toastmaster stood up and asked for attention. Much to his surprise, he got it.

"Out With the Speeches!"

Briefly, he outlined the reasons for the dinner, for Lambda Tau's existence, for the pins he was about to award. Then he gave out the pins.

Attempts at after-dinner speeches were thwarted. Those assembled had come to enjoy themselves, not to listen to self-conscious and halting talks.

Afterwards, the company broke up into smaller groups. Some went home, others didn't. One unit went over to Greenwich Village to celebrate. And so ended the first Lambda Tau Dinner.

NEW BLOOD WANTED

The end of every school year finds THE PIONEER staff depleted to a greater or lesser degree. This year is no exception. This means that there are positions open for those students in any school of the Cooper Union who wish to learn something of editing, writing, or publishing a periodical.

For the benefit of those interested, directions for joining the staff will be posted on the bulletin boards at the beginning of school next semester.

Operation of Paper Bared

Make-up Done at Meeting Held Friday Night, At Printer Monday Noon

The average reader of THE PIONEER probably realizes little of the labor of its small and hard-working staff. Even before the distribution of the latest issue, the staff has already started the collection of news for the next one.

Eight days before the date of issue, assignments are handed out by the Editor. During the next four days, the Day and Night News Editors, the Art Editor, the Feature Editor run around with their immediate staff members, getting the facts and putting them together.

Friday is the Big Night

Friday night finds the entire staff congregated in ME Lab. 6 in the Hewitt Building. With the copy on hand and marked with the number of column inches of space needed for each item, the Managing Editor sets to work making up the dummy.

Staff members write the headlines after reading the copy. Some are kept busy making last minute additions and alterations. Long after midnight, the last few reporters and editors wearily leave the office. One of them brings the copy to the printer, at the same time leaving drawings at the photo-engraver who makes up the cuts.

Goes to Press Monday Night

Monday afternoon the Production Manager and Managing Editor, with their small staff, work at the print shop. There they read proof on the galley of copy waiting for them. The Editor and Associate Editor are also at the shop.

Proofs are cut and pasted into position in the dummy to show the compositor the arrangement of the stories. About midnight, the page proofs are ready. This is the final opportunity to make corrections. THE PIONEER is then in the hands of the pressman, who has it ready for distribution the next morning.

It is now Tuesday, and the Circulation Manager hands out to the section representatives the required number of copies for you to read.

LUST FOR ART



E. Palmer Allen

Only through the stimulus and the feeling of greater clarity in thought which painting is giving me could I have written "Lust For Art." The study of painting is extending my horizons to such a distance that daily I find profounder and more significant meaning to all experience, and thus I tried to carry over to the column the constant readjustment of ideas in which I am involved.

This whole conception has differed from that of the column last year. Bob Gundlach, who named it and is its originator, confined his efforts to writing short stories and to describing places seen and events that he experienced.

Origin of Material

My column was built on ideas inspired by or derived from books read, conversations, arguments, movies, places visited, sights seen and, in fact, whatever I saw or thought during the year and tried to unify into some sort of comprehensive whole.

Someone criticized the column as a much too personal thing to be published. I do not believe so because as my thoughts are similar to those of all students, so are they vital and not personal. Sincere thought is of interest impersonally to all thinking persons.

Effort Sincere

These delvings into the mysteries of existence may not have been more mature than my twenty-two years, but despite my opinions at some distant future, the column is now as sincere a reflection of ideas inspired by events and influenced by painting as I could write.

I must confess herein to a delightful feeling of accomplishment whenever anyone took the trouble to tell me what he thought of my effort. Good or bad, in the compliment of criticism I found satisfaction for the work spent.

Features

During the past year there has been an innovation in THE PIONEER, the "Feature Page." Its purpose has been to stimulate the interest of Cooper Union students in the multitude of interesting things which exist around town and to allow their minds to relax.

One of these features was the popular "Collegiana." It has brought many a smile to its readers, and sometimes even a hearty guffaw, known to the vulgar as a belly-laugh.

For the puzzle fans, there has been a puzzle column in every issue of THE PIONEER. The contest held in the early part of the year was won by Eli Yampolsky. Puzzles of all kinds have appeared, ranging from cryptograms and mathematical brain-teasers to catch questions.

The "Tabloid Theatre" was a movie review that was at once interesting, informative, and entertaining—especially the "poemtry."

For the Intellectuals, Too

Book Reviews guided the reading taste of the student body, and "Doing The Uptown Lowdown" made the Cooper Union theatre conscious.

The "See By The Papers" acquainted its readers with interesting items in the news and with current developments in science.

There is one feature, however, that was different each week. Reporters were sent to various points of interest to get material for their articles. Original stories by the students, interviews with artists and engineers, write-ups of the Power Show, the coming N. Y. World's Fair, cooperative stores, sketches of important people—these were some of the topics that changed weekly.

Readers Catered To

The primary aim in setting aside a page of this sort in THE PIONEER was to give its readers a certain amount of information that was not strictly news. In a school such as Cooper Union the program of studies takes so much of the individual student's attention that he has not the time to devote to affairs outside school that he wishes.

It is to make up this lack that the features in the paper were instituted. From the readers' comments and responses, it has fulfilled its principal reason for being.

WARMING THE BENCH

I. Leo Goldstein

Prior to this year, I had had no experience at writing, and certainly not at writing a column. Still, I had some definite ideas on the "how" and "what about" of "Warming The Bench."

I had noticed that the better sports columns, even though of entirely different styles, exhibited one very marked common characteristic. They were all written in a most informal manner, little regard being paid to grammar, spelling, etc. It seems as if the columnist were speaking to you as one friend to another and not as a newspaper man to a reader.

Definite Policy Followed

In my own poor way, I've tried to emulate this, what seems to me, desirable feature. From the comments received, perhaps I've succeeded to the extent that my grammar and spelling have been acclaimed not very good.

As far as the sports policy is concerned, I also had definite ideas. In brief, my policy is to discuss a new sports topic every week. For instance, intramural waterpolo one week, softball the next, swimming meets, rifle, basketball, and so forth.

Sports Outside Cooper

These sports were not limited to those in the Cooper Union. Indeed, certain columns were devoted to propaganda, the purpose of which was to arouse interest in new sports, so that they might become part of the recognized ones sponsored by the A.A.

Another column berated the "Gold C" Committee and the A.A. for not lending inspiration to the drive for new sports by rewarding appropriately those who worked to organize the intramural games.

Some Results Shown

Perhaps the articles have done some good, for already a handball tournament is being prepared. (These lines were written in the early part of March.) The softball games are to be played again, and a dormant interest is gradually being aroused in other sports.

THE EXCUSE

THE demise of the scholastic year of 1936 marked the birth of The 1937 Cable, for it was at the last meeting of the General Student Council that the editorial staff was appointed. Chosen for the task of producing Cooper's yearbook were Frank Kelemen, Editor-in-chief; Al Russo, Business Manager; Bob Gundlach, Sid Swertloff, and Bill Vreeland, Associate Editors.

Work began as early as June, with discussions of the technical phases of the book, such as size, type faces, cover design, quality of paper, and format. Recalling those first get-togethers, one cannot help but be reminded of the prodigious efforts of Bob Gundlach who took it upon himself to teach the fundamentals of good design and layout to his somewhat skeptical engineering associates. Black masses, grey masses, white masses, balance, harmony, contrast, and consistency,—all these were wrestled back and forth for weeks until sheer exhaustion, aided and abetted by the onslaught of tongue-parching weather finally culminated in agreement.

Of course, no record of Cable activities during this or any other period would be complete without mentioning that little ray of sunshine, that go-getting Miss from the Comet Press, Sylvia Rosen. It was Sylvia who arranged a meeting place for the staff; it was she



Bob Gundlach, the lucky dog, is shown supervising some of the better looking staff members.

who introduced us to the many vagaries attached to the "gentle" art of editing; Sylvia it was who performed herculean services in so many ways. To this little Lady of the Press may we say thank you.

It was during those pioneer days that we first met Mr. N. W. Allis, the soul of patience (he, too, took Gundlach's special gratis course) from the D. J. Molloy Company, makers of the cover for the 1937 Cable. Conferences spanning the entire summer were necessary before the design for the cover became an actuality. Many heated discussions arose which merely served to indicate the zest with which the editors worked.

Preceding many of the events above was the task of the staff financier, Al Russo, who drew up the various contracts (shades of Professor Cleveland F. Bacon) with the companies handling the several production features of the book. Since the Cable as well as all other major activities of the school was supported by the Blanket Fee, much of the work of the Business Manager (i.e. selling the Cable) was eliminated and Al devoted the larger proportion of his time to trimming expenses and acting in an editorial capacity. In Jerry Varnum, he found a valuable assistant for the obtaining of advertisements and the contacting of Patrons.

By the time school opened, the cover design was practically finished, the dummy was well on its way, and all the technical points mentioned were settled. It had been decided to be conventional to the extent of having the material convey a central theme, "Cooper Union," but to depart from the stereotyped by making the presentation informal.

With the resumption of classes, the work settled down to the routine matters of gathering copy and taking the photographs which



Writing captions, dummyping-up, became the lot of Neil Kirby; then people talk about his easy job as Sport's Editor.

"Pinocchio" Gundlach is noted first for his nose and, second, for his artistic taste and temperament.



were to make up the substance of the Cable. Bill Vreeland and his side-kick assistant, "Horny" Hornickel, kept the Night Engineers hopping to meet the deadlines which kept recurring with insistent regularity. Bob Umbdenstock and Bill McShea performed like services in the Day School, finding themselves up to their chins trying to maintain assignment schedules. As for the Day Art School, this branch of Cooper was entrusted to the capable hands of Terry Woodcock, Camille Martin, and Emmabelle Cooke who relied upon their charm to entice the future Da Vincis and Angelos into getting things done. Neil Kirby found himself this year not only making Cooper sports but writing about them for the Cable as well.

To say that any of the above individuals covered only the assignments mentioned would be a gross understatement. Each and every one found time to delve into the mysteries of the other fellow's job.

To Giles Green and his partners in crime, Harry Robbins and Carl Guerci, must go the credit for pilfering as fine a collection of candid camera shots the covers of this perennial yearbook have ever enclosed. Without the splendid cooperation of the faculty, however, the efforts of these boys could never have proven so fruitful, and the staff of The 1937 Cable wishes to take this opportunity to thank each and every one for his much needed help in this direction.

The feature articles were handled by Marvin Weiss, primarily a member of the Pioneer editorial staff, but who, whenever prompted by the desire to mingle with the literati, would drop into the Cable office, and in this refined atmosphere pound out a story or two of which he might well be proud. Marv also acted as contact

A source of trouble for this year's Cable was that except for Bill McShea everyone used the "Hunt and Pick" system.



Ken Neuman, Al Russo, and Neil Kirby saw the photographer; there was a sudden flurry; now look at them.

man between the two publications and through his efforts the many necessary notices to the students were published.

Proof-reading and its associated headaches captivated the attention of many individuals chief among whom were George Phillips, Allison Scott, Eileen Patton, and Ken Neuman. The looks of dismay so often apparent on these worthies' countenances as they perceived split infinitives, misplaced commas, antecedentless pronouns and such, usually gave way to painful grimaces and finally wild screams after which they invariably calmed down and resumed their roles as prestidigitators of the King's English.

Not all of the experiences of those connected with the Cable have been in Room 27 of the Foundation Building. One of the most enjoyable features of being on the staff was the Friday night dinners (charged up to the Cable) which all of the all-night workers attended. At this time a quiet and extremely pleasant hour and a half would be spent away from the cares and worries of the taskmaster, that darned book. Here instead of talking about galley proofs, engravers' proofs, more copy, deadlines, etc., conversation on any other subject was tolerated. Any individual with the temerity to speak about duties at this time would be pretty foolish, for such matters were not handled delicately and like as not said individual would find him-, her-, or itself bodily ejected.

All good things come to an end sooner or later and so it was with the dinner interlude. Back to the office where the serious business of producing a yearbook had to be resumed.

As time went on, the spluttering staccato of three typewriters out of synchronism, the blue haze of thick cigarette smoke, the bellying of belligerent editors, and the frantic pleas of the female element to cease, combined with genuine fatigue, usually resulted in the dwindling down of those present to a mere few. When at last 3 A.M. arrived, even these hardy souls would surrender to fate,

Frank Kelemen working — unusual. drop what they are doing and quit.



And so it went, week after week, until, miracle of miracles, the job was finished. Strange as it may seem, believe it or not, and contrary to our expectations, we were not glad when the first crop of Cables came tumbling from the presses. The general feeling around the office may best be summed up in the words of Frank Kelemen who said, "Gee, if we only had the job to do over again with the experience we now have, what a bang-up Cable could be turned out with only about one fourth of the time and work!"

THE ANNUAL DANCE

Philip E. Hagerty
Elsie Fischl
Erica Gorecki
Jack Schwartz
Murray Schwartz
Frank Vanek
Abraham White
Louis Zernow

IT has long been the custom of Cooper Union undergraduates, alumni, and their friends to meet each year in an atmosphere of gaiety and good fellowship." Thus was Cooper's largest, and by far most important social event of this or any other year described in the charming souvenir booklet of the Annual Dance.

The affair this year was staged at the exclusive ballroom, of the American Women's Association Club in the "Furious Fifties" in Manhattan, and was attended by well over a thousand persons. Music by Art Paulson and his orchestra, and solos by a beautiful creature in aquamarine net—a stunning vision whose name, unfortunately, we were unable to determine—were what may be called the sine qua non of the shindig.

The committee to whom we are indebted for the success of the brawl was headed by Phil Hagerty and had for its members some of the most outstanding personages in school among whom were Erica Hanka Gorecki, Elsie Fischl, Frank Vanek, Murray Schwartz, Louis Zernow, Abraham White, and Jack Schwartz. This group worked hard and long, making arrangements, distributing tickets, and what-not, and the student body of Cooper and their friends feel a deep sense of gratitude towards them.

A society editor would probably call the event an illustrious and gala occasion marked by the presence of so and so, and so and so, colored by beautiful decorations, and distinguished by the cultured manner in which those attending deported themselves. A movie producer in Hollywood, no doubt, would have employed



Gay evening gowns lent color and charm and clashed with the somber hues of the Tuxedo and Tails.

the terms stupendous, colossal, and gigantic. We think it was swell!

The evening's confusion began immediately upon entering the ballroom when the lads and lassies had to decide at which of the many check rooms they wished to relieve themselves of their outer finery. And finery it was! Vogue and Esquire would have done well had they sent representatives.

After leaving the depository for exterior raiment, one spent the next hour or so introducing the wife, girl friend, husband, or boy friend as the case may be, to one's cohorts at the mad scramble. Chronologically speaking, the procedure following the back-slapping and hand-shaking routine (ever so useless, in retrospect, since it wastes so much of one's time) was the fervent search for a shoe horn, wedge, or other implement for injecting one's self and partner onto the dance floor, there to forget the impending exams in the melodious strains of the waltz and the heart stirring rhythm of the rhumba.

The modern ballroom of the AWA provided a colorful background to the pastel hues of the décolleté evening gowns. Three individual sets of lights were employed to provide variety in color and illumination. For the hot, fast music, the ballroom was completely illuminated; for the slow sweet,

Between numbers the dancers relaxed at tables in the ballroom and bar-room.



tunes dim, multi-colored lights reflected from a revolving dome in the center of the ballroom ceiling were employed; a third series of lights concealed behind glazed inserts in the ceiling were employed for the moderately fast, but sweet, tunes.

Straphangers on the Lexington Avenue subway during the morning and evening rush hours have nothing on those brave couples who ventured to dance at the Annual. Strange as it seems, believe it or not, and other expressions of incredulity, notwithstanding the fact that only approxi-

mately one square foot of dancing space was available per couple, at least a score of Cooper's engineers and artists actually found room for truckin'. Luckily, there was a disgusting lack of inebriety, because if one tipsy couple had decided to hit the deck, four or five hundred would have fallen with them.

No one seemed to mind the extra crowding, and, for that matter, most of the dancers seemed to enjoy it. Confetti, streamers, and balloons were provided to liven up the already lively affair. The balloons proved very efficacious as protective bumpers for the dancers, as they bumped around the floor.

The orchestra, unlike Cooper students, scheduled themselves

for a rest now and then, and it was during these brief intermissions that the tongue parched and foot-weary strutters sought refuge and refreshment in the Ferris Wheel Bar (so named because of all the millions of things in the world, a Ferris Wheel is what it resembles least). One's first visit to the bar immediately established the reason for the utter lack of intoxication so conventional at college dances and so conspicuous by its absence at the Cooper Annual. The crowd was six lines deep waiting for that precious Old Fashioned or Planter's Punch, and if one were to hang around long enough to be served sufficient liquid to get tight, he would probably be there yet.

A pleasant surprise was in store for those with the temerity to join the milling throng at the bar in the person of Gypsy and her Accordion. Playing tirelessly, and with really remarkable skill and a seemingly endless repertoire, Gypsy answered request after request in her own inimitable manner. Old favorites followed the swing tunes and the boys and girls joined in a chorus, singing lustily the songs of yesteryear.

Worthy of particular note was the complete absence of shop talk. The engineers were on a holiday and they took advantage of it. There wasn't a slide rule in the house, and the word "integral" passed not a single pair of lips. The artists too behaved very nicely and were it not for just one mural done rather half-heartedly on a snow white table-cloth, no outside spectator could ever have guessed the presence of several hundred students of art.

The presentation of honor awards was distinguished by its informality. Sid Swertloff, chairman of the Gold "C" Committee, carried the awards around in his pocket and every now and then could be seen making a dash for some recipient,

reach down and come up with the shining token, symbolic proof that the 26 hour day is not only possible but an actuality. A slap on the back from Sid, an appealing glance from the girl friend with the subsequent fastening of the pin on her evening gown, and all tangible reward for extra-curricular activities vanished.

Some impressions of an interested bystander: Dave Klein, the height of exclusiveness, and his pipe—strutting around like a Major-domo. Frank Kelemen and Bill Vreeland discussing ways and means of getting the Annual write-up to the printer under the deadline. Neil Kirby taking first prize in the balloon blowing contest. Geoffrey something or other mystifying everyone with his card

The favors provided at the Annual helped to keep the "children" entertained.



tricks. Effingham Van Bueren Kettleman, Herman Hornickel, Jacob Schiller, and Richard Oldham warbling "Ein Prosit," a glass of foaming lager in each hand and two pitchers waiting on their table. The banners of O.D.P., P.S.O., L.S.K., and A.M.S. added to the very evident collegitae atmosphere. Bob Gundlach and Terry Woodcock scratching their heads trying to get some copy for The Cable and winding up by becoming copy.

Each of the various Cooper fraternities had its own section of the balcony reserved for its members. Rivalry ran high as to which fraternity could make the most noise. The contest was decided when a group of ordinary Cooperites drowned out the cumulative noises of all the fraternities, the orchestra and anyone else choosing to emit sound. The identity of the members of this strong lunged group was effectively concealed.



The "milk and honey" served at the Annual helped to increase the evening's fun.

Such a good time was being had by all, that Phil Hagerty arranged for an additional hour of music. The announcement that dancing would continue 'til 3 A. M. was greeted by a wild cheer which only goes to show that the stamina of Cooper students is not confined to the classroom but extends to their social life

as well. Though the music ended a little after 3:00 A. M., it wasn't until well after four that the AWA attendants were able to breathe again without having to fight a Cooperite or his companion for the right to do the same.

A section of the large crowd that helped to make the dance the outstanding event of the school year.



When the curfew hour finally arrived, the gang departed in small groups to their favorite after-dance rendezvous, there to relive the events of that never-to-be-forgotten Annual amid palatable stacks of griddle cakes, luscious waffles and ice cream or what have you. After the snack, the timid went their various ways to home. The more adventurous gallivanted about for many more hours and, then, perhaps repentant, went to an early Mass. The average reveler did not find a place to rest his bones until 7:00 A. M.

"It has long been the custom of Cooper Union undergraduates, alumni, and their friends to meet each year in an atmosphere of gaiety and good fellowship." May this tradition continue to endure!

THE SENIOR HOP

AS the evening, which started in the later hours of Saturday, March 20, 1937, wore on, a merry whirl of black clad men and flowing gowned girls got into the spirit of the Senior Dinner Dance.

Many were the men who readjusted the proverbial wing collar and that evasive black tie as it emulated a windmill in its endeavor to revolve on the Adams apple. And many were the girls who tried to repair the drooping corsage, so subject to the crushing effect of dancing close to their partners to the swinging "Boston Tea Party" or that scintillating rhumba, "Mama Inez."

The celebrants at the dance were treated to the refreshing spectacle of their classmates in unfamiliar and picturesque garb made still more enjoyable by the decorative addition of their girl friends. There was much enthusiastic greeting and introducing of a friend to a friend of a friend. Away from the prosaic classroom, the dancers could enjoy the jovial side of each other's natures for more than a few minutes.

It all began with a committee of Architects, comprised of Harold Black, Chairman, and Irv Friedman, Ted Randmetz, Normy Slonin, Vincent Schulman, and Hyman Wechter, members. They wanted to put over a swell Formal Dinner Dance at the Florentine Room in the Hotel Governor Clinton.

Their desires were realized on Springtime Eve with the gradual influx of guests starting at around nine o'clock. Despite an unceasing and ominous downpour of rain, numbers of cars did stop at the Marquee of the Hotel Governor Clinton to unload their human cargoes. On arriving at the Florentine Room, it was found to contain among other things, tables, chairs, and a floor, all of which were deemed necessary to the success of the affair. The tables were neatly decorated, the chairs substantial enough for any guest, and the floor smooth, polished and marble.



The feast was at 11 o'clock, preceded, interrupted, and followed by the rhythms and syncopations of Lou Harolds and his orchestra. The guests were warned of the ample repast at their several tables through the medium of Menu blue prints, lettered by the hand of someone who obviously was a student of architectural rendering. Place cards were novel little "T" squares, and the feminine element received dance programs bound with maroon velour paper, trimmed with gold.

The dinner consisted of a fruit cocktail, consomme Julienne, roast sirloin of beef, vegetables, dessert and coffee.

Of the 72 guests, most of the bids to the affair were procured by the Archs. Only four of the entire Day School and escorts having showed up. In the first hours of the morning, rolls of streamers, balloons, and cotton "snowballs" were given out, and the Florentine Room became a deluge of color through which a merry "snowball" battle was waged.

A snake dance was then organized by many of the guests, who were soon incited into a riot by the onslaught of "snowballs" tossed by the four Day Seniors.

Dancing proceeded after this with occasional couples attempting various forms of trucking, rhumba, and tango according as the music prompted, until the traditional "Auld Lang Syne" announced the unwelcome end of an enjoyable dance.

The happy committee at the successful Dinner-Dance which culminated their months of planning. The members left to right are: Harold Black, Norman Slonim, Theodore Randmetz, Vincent Schulman, and Irving Friedman. The girls are left to right: Frances Ochshorn, Lee Amster, Evelyn Hecker, Annette Neuhaus, and Ethel Doff.



ENGINEERS AT PLAY

SOME of the more gloomy members of the Institute of Technology have been a little too quick in branding the life of the student as all work and no play. True, the gentler sciences of social contacts are not stressed, but to offset the lack of organized social activity, a considerable number of private celebrations have been held among the various classes of the undergraduate engineers.

Probably the most popular recreation among the engineers is bowling. This sport, which has now assumed national importance, was introduced to the school by a group of fanatics headed by Sid Swertloff. By means of cajolery, appeals to vanity and school spirit, and sometimes even threats of physical violence, weekly practice sessions were organized and plans made for a series of interclass tournaments. The high point of the bowling season came on Christmas Eve when the Chems and the M.E.'s, meeting after their class dinners engaged in a mass contest in which the Chems came out second best.

The M.E. Christmas Dinner was revived this year, under the leadership of Sid Swertloff and the auspices of the student branch of the A.S.M.E. For some reason, the old series of dinners had been allowed to languish for several years, but their popularity was proved by the enthusiastic response of both student and faculty members of the department to the idea of having another one. The affair, which was held the last day of school before the Christmas holidays, started with the younger undergraduates being taken in charge by the Seniors and introduced to the aims and purposes of the M. E. Course and the A.S.M.E. This was followed by an extremely interesting series of motion pictures of his own experiences shown by Charles Coles, a Cooper Union Alumnus. After that, the group adjourned to the pleasures of a steak dinner and gab-fest at Nikolaus'. Later, someone remembered that the Chems

One kegler from the engineering school looks on as his opponent bowls what he hopes will be a perfect strike. His most fervent prayer, though, is that it won't be a gutter ball.



were also having an affair which was due to end up at the Radio City Bowling Alleys, and forthwith a flying squad of M.E.'s descended on the said alleys to the utter discomfiture of the Chems.

The Chem dinner, unique in the history of the department as regards the 100% attendance of both students and Faculty members, was featured by a number of serious and jovial speeches. After the dinner, the whole group went bowling. At the alleys, some additional unexpected entertainment was provided by Mr. Kunz, the gayest and poorest bowler of the party.

Prior to the dinner, the A.I.Ch.E. played host to the Freshman class in the annual Freshman Reception, providing the members of that class with colored motion pictures and a lecture on water delivered by Prof. G. Wotta Dope (Ed Scheibel) and his capable assistant, Herr Razor (Pete Kolesnikoff). Demonstrations which had been planned to supplement the lecture failed to operate as expected, much to the despair of the eminent Professor and the enjoyment of his audience.

The Senior Civils achieved a new note in class entertainment when they gathered at the home of Dan Okun, deep in darkest Brooklyn. Since the C.E.'s run to athletics, they whiled away the hours by settling the question of who was class handball champ.

Goldy became the head man in handball, but the ping pong contest had to be called off when the only remaining ball disappeared. Frank Kelemen was accused of swallowing the ball in order to stall off the award of the table tennis crown, but nothing could be definitely proved. In the matter of refreshment, the C.E.'s stand as a unit, though the unit is itself divided into two subdivisions. Some of the boys are all for Colonel Ruppert, while others

True to the school tradition first set by Peter Cooper, himself, a thirsty duo avidly down a mug of McSorley's own. This, the oldest ale house in the city, is close by at Seventh Street and Hall Place.

pronounced Kreuger's best. Okun stands alone as a staunch advocate of McSorley's.



The various classes are united with the Art School through the medium of the Newman Club and other similar organizations. The Newman Club sponsored this year, as in past years, a Roller Skating Party, a Winter Sports Party, a Monte Carlo Party, and several discussion hours. These affairs, open to all who wished to avail themselves of

the opportunity, provided, in a small way, some of the opportunities for the various classes to mix socially. What more do two people need in common than \$75,000 and a chance to double it or lose it all in a few minutes? The winter excursion to Bear Mountain, although a failure for the skiing enthusiasts, was featured by open-air ice-skating among the budding trees. February 22nd was the date,—need anymore be said?

The Night Engineers have also managed to break into the limelight socially. The Frosh and Second Year Class combined to hold a dance. The "Little Annual," as some students called it, was as successful as the Sophomore affair held last year by the Day Students. A true school spirit, seldom before evidenced among lower classmen, drew many new dancers onto the dance floor. This affair enabled the future grads an early opportunity to get out and mix.

Disproving the old adage that business and pleasure do not mix, the Senior Chems managed to find time amongst report writing and attending classes to go on several over-night excursions to out-of-town plants whiling away the evening hours enjoying outings to places of interest near the factories visited.

Not to be out-done by the "boys-from-across-the-street" the C.E.'s, too, went on an over-night excursion, but solely in search of pleasure, to a remote town on Long Island, the summer home of one of the students, Roland Anders. Swimming, and the old battle of Ruppert's vs. Kreuger's featured this get-together.

These are but a few of the affairs held during the year, which have helped to ease the tension due to studies, to help us become better acquainted with our fellow-students and our instructors.

Those infamous Fifth Year Night Engineers were such a small group this year, that many opportunities for informal get-togethers presented themselves and were adequately taken care of. The Chems, under the watchful eye of its female constituent, amused themselves by dunking doughnuts after the curfew hour.

Cares and worries were discarded weekly by the elbow-bending E.E.'s., M.E.'s., and C.E.'s., when they gathered at the German-American Rathskellar, there to join in the singing and incidentally in the partaking of liquid refreshment.

The Student Bulletin Board is the one thing every student makes a point of looking at each day. Notices on it range from dances, sports, and books for sale to mild buffoonery of fellow students.



THE GAY ARTISTS

JUST before Christmas in 1935, the Junior Class decided to celebrate the coming holidays with a masquerade party. This was a really revolutionary idea, for nothing colossal in the party line had ever occurred in the Art School. Everyone was enthusiastic; committees were formed and preparations got underway. Finally, after an impatient week, rainbow-hued Juniors, pulsing with excitement, turned out decorative murals which, through the grace of God and the aid of colored chalk, made the walls resplendent and intriguing. Willie Sorrells pictured a fantastic jungle, and Eileen Patton drew some of her characteristic lambs and angels. Erica Gorecki added a bit of Russian atmosphere, and Marie Sariego, the

Mr. Shaw, informally chatting with others of the Art Faculty, is caught unawares at the Carnival.



chairman of the Decoration Committee, portrayed a bullfight. Doris Grady made some very penetrating caricatures of the faculty and prominent students.

The morning of the party arrived. The committee energetically bounced chairs into place, shoved closets against the walls, and piled easels into corners. The murals were hung, a stage was set up, and a bar was built. At noon, preparations were completed, and the tired and hungry Juniors sat on the floor to catch their breath. Then Mr. Purves came along and invited the exhausted enthusiasts to lunch at a long table that he had ordered set up in the hall.

Then the magical hour arrived. Fantastically garbed artists and engineers poured into the Art School. The best and most original costume was worn by Ruth Allen, who portrayed a dream of Picasso. Ben Ahneman won second prize with his superb bartender's costume. An eighteenth century coquette, the bride of Frankenstein, a Greek Goddess, and an uncomfortable looking eccentric gentleman, all swept beneath the tropical lavishness of crepe paper vines whose balloon blossoms radiated "more than

the lavish splendor of the distant Orient."

In what is Mr. Harrison's room stood the "groaning board" and bar, watched over by a full blown goddess of the vine, distinguished by a merry eye and strawberries and cream complexion. Terry Woodcock and Ann Pracny headed the Refreshment Committee, and were assisted by several pretty Juniors who served sandwiches and cake.

In Mr. Turnbull's Room, a pyramid of musicians cast their restless enchantment from one corner into the mobile mass of student and faculty that darkened the floor. The mid-festival relaxation was glorified by entertainment in the person of the darkly romantic tangoist, La Gorecki. Mr. Gundlach, the gentleman of many burps sounded down the social ladder and landed sonorously in McSorley's shockingly near the floor.

A short play by that eminent poet-playwright, Henry Meyer, portrayed the woes of Mr. Purves, who was eternally besieged by students demanding a word with him. One particularly persistent but shy student kept entering the office, but finding Mr. Purves busy each time, went nervously away. Finally he could no longer keep the reason for his visits a secret and blurted out that the school was on fire!

The pent-up energy of the students burst forth after the entertainment and spent itself in eating, dancing and a strange, unprecedented happening. There is a game humorously and well named "School Marm," the object of which is to chastise the victim thoroughly. The chosen victim was "the boss." It was such a noble example of good sportsmanship and happened so unexpectedly that no embarrassment was felt on either side. The next day, apologies were offered and laughingly accepted.

Before last year's Senior Class officially departed from our midst, it staged a grand Gay Nineties Party. Room 69 was transformed into an 1890 Cabaret, complete with red checked tablecloths and pretty barmaids. The refreshments consisted of hot dogs with sauerkraut and root beer. There was a floor show to entertain the guests, and a touching melodrama in which the heroine was able to retain both her virtue and the old homestead. After this, a sextet of cuties danced to the tune of "Tell Me Pretty Maiden."



"Put your arm around me, come closer . . . Say! this is a dancing class."

All of the Art Affairs are well attended by both the Art and Engineering students.





Come one! Come all! Step up! Come closer, folks! Only a sample of what's inside. New and better freaks!

Between the acts, the whole assemblage, led by a husky voiced Senior, sang all the good old tunes, like "Take Me Out To The Ball Game," and "Casey Would Waltz With a Strawberry Blonde." Then the chorus returned to give a rousing rendition of "Ta-ra-ra Boom-tee-ay." The party was a great success and gave us all something to remember the Seniors by.

A costume party sponsored by the Sophomores brightened the beginning of this school year. This celebration was called "The Sophomore Ism Dance," the idea being that everyone appear as the "ism" that struck his imagination most forcibly. The

Artists, and even some of the Engineers, did justice to the idea. Abstractionism was portrayed by a whole composition cut out of wood and painted. Schism was a young lady who was half angel and half devil. Sir Reelism was in evidence and so was his rival Cerealism. Rowdyism and Glamourism were both superbly illustrated for the edification of the crowd. The costumes that deservedly won the prizes were Baptism and Hitlerism. Alice Miller, the candidate for baptism came prepared with her own ingenious contraption for doing the job. This consisted of a few lengths of pipe and a bath sprinkler. Of course, she was also adorned with the traditional baby's dress and bonnet, and the inevitable lollipop. Marshall Anderson, who was dressed as that European statesman of repute, won second prize for his clever get-up.

The photographer looked for and found the impossible. Below is shown his evidence. Girls—EXTRA girls—at one of the rollicking Art affairs.



The entertainment, which proved worthy of many a huzzah and hearty laughter, included many skits staged by prominent members of the Sophomore Class. One skit was a reenactment of Mrs. Harrison's Design Class. Miss Naomi Ranson played the lead, and gave a remarkable performance when she explained, as had been explained to her and the rest of the class so many times, what design is. Fred Quirin gave a fine imitation of Mr. Turnbull. Then five of the class presented a pantomime of an automobile in action. Herbert Lubalin was the driver, Milton Pedolsky played the part of the front tire, and Isobel Gutterman assumed the difficult role of radiator cap. Helmut Riehl took up the reins of sound effect man.

A hastily gathered Soph quintet gave a heart throbbing rendition of "Down By The Old Mill Stream," peppered with a smithering of "Auld Lang Syne." This well voiced group consisted of Milton Pedolsky, Bernie Meyerson, Herbert Lubalin, Lou Dorfsman, and Al Moderacki, and was conducted to notoriety by Senior Louis Donato.

The next feature was a play with an idea. The play was "Pygmalionism"; the idea was "You never know a woman until she opens her mouth." Mae Cooper was the statued "Galatea," who was brought to life by the sorceress, Isobel Gutterman, for the passionate artist, "Pygmalion," who was portrayed by Fred Quirin.

The high spot of the evening's entertainment was a daring ballet with an all-male cast. The costumes worn were truly attractive and even a trifle risqué. Dimpled knees were invitingly shown between short, well-flared gowns of a brilliant carnation pink, and richly colored socks were upheld by masculine garters. Necklines were draped by flowing ties knotted at random. These gentlemen of the chorus were Fred Quirin, John Browning, Freeman Craw, and Helmut Reihl. The dancers so delighted the audience that they were recalled for an encore.

The music throughout was provided by the combined orchestras of Bernie Meyerson and Lou Dorfsman. Alvin Moderacki was General Chairman. Mary Cahill, chairman of the refreshment committee, assisted by Madeline Leddy and Sylvia Kushner, arranged a table of delicious and dainty edibles. The Art School Faculty was represented by Mr. Esmond Shaw, Mr. and Mrs. Wallace Harrison, Miss Henrietta Schutz, and Mr. Algot Stenbery.

This year's Juniors staged a mammoth carnival. After much hair-tearing, campaigning, ballyhoo, ribald circus posters and parades, it was ready. The walls were covered with descriptive murals, a few of which were "Buck Purves Rides Again," the "Flying Trapeze Artistes," portrayed by the lunchroom staff, and "The Cooper Clowns."

The main feature of the carnival was, naturally enough, its sideshow. All the traditional headliners were present. Bob Rohe,



A genuine bit of informal continental atmosphere at the well remembered Cooper Carnival and Freak Show.

A costumed reveler at the "Ism" Party endeavoring to explain his particular ism. Now you've guessed it. Aw—someone told you.



the ring leader and barker, introduced each one, who, in turn, did his own particularly concocted specialty. The "Fatuous Fat Lady," portrayed by Catherine Wythe, spurned the amorous attempts of the "Carnivorous Cannonball," imitated by Vincent Valentine. "Digesto," the Sword Swallower, amazed the trembling audience by actually swallowing a sword. This wonder was portrayed by Herbert Rosenberg. "Harriet, the Bearded Lady," did a hootchy-cootchy dance for the customers, and "Rubasco, The Rubber Man," portrayed by Jon Stengren, twisted his rubbery arms completely around his head to light a cigarette. Charlie Ziegler was "Strongo, The Strong Man," who lifted a 500 lb. weight, bent steel bars, broke handcuffs, spit nails and carried on a hilarious flirtation with a girl in the front row, all with the greatest of ease.

When the performers had finished their acts, the celebrants danced to sweet and hot music by Bob Rohe's swing band. Pink lemonade, sandwiches, ice cream, and pretzels were obviously enjoyed by the dancers.

For the first time in the history of Cooper Union, the Night Art School Students attended the party. Their amazement melted into delight when they found everyone so congenial and happy. Since the party was given at night, and Mr. Shaw had declared a holiday, they were given the opportunity to attend. The party was a great success. Not only did it afford everyone a chance to blow off steam but it also helped bring the Night and Day Schools closer.

Here they are, Engineers and Artists, literally joining hands in an attempt to raise the standards of dancing for all forthcoming affairs in the Cooper Union.



COOPER UNION OPEN HOUSE



To the guests, the laboratories seem to contain many marvelous and intricate devices. At this time the students thoroughly acquainted with these gadgets go into lengthy discourses on their operation.

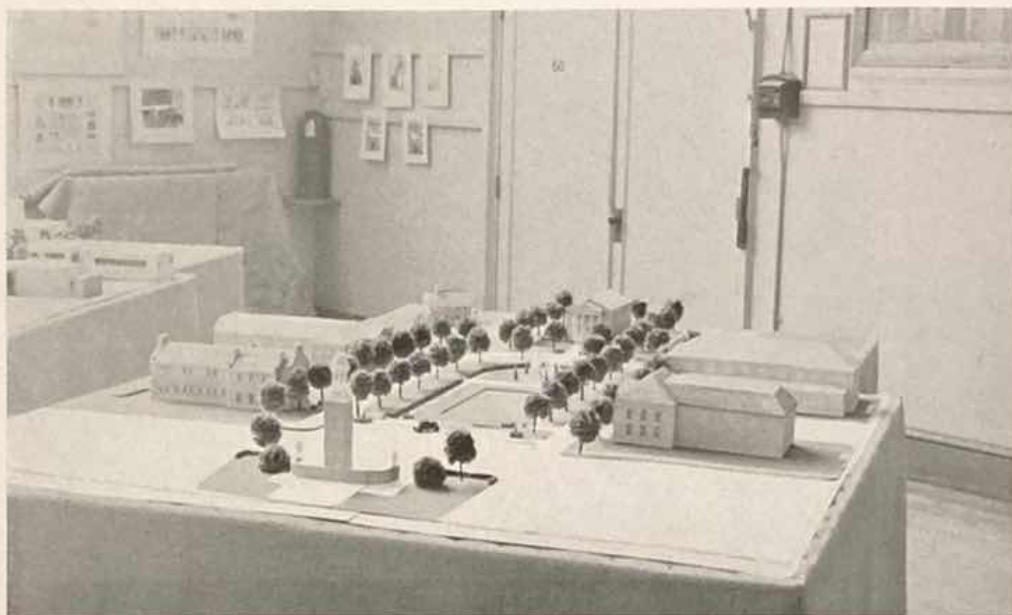
EARLY in May, when spring fever begins to overtake some Cooper students, and examinations overtake others, the halls, classrooms, and laboratories are the scene of much restless activity. Apparatus is carefully polished, and placed in the mathematically exact position, drawings are hung on the walls, "works of art" are placed in correct juxtaposition.

The Dean and the Faculty greet the visitors and welcome them to our school. Ushers show them the various exhibits and explain the difficult parts. Sometimes music and dancing are heard in the hall of the Hewitt Building as part of the program.

Students bring their parents and friends and show them proudly about **THEIR** school. Perhaps an engineer has a drawing exhibited, or an artist a painting; how nonchalantly the student brings his friends near his exhibited work! How surprised he is when his father, or mother, or wife, remarks, "Why, this is yours." How modestly the student smiles at the praise he hears! But the warm glow that the student feels deep inside is worth the years of study and work that he has gone through.

Every one leaves in high spirits. The student proud of his accomplishments, and the parent proud of his offspring, and with the fact that he has looked as though he understood each word that has been uttered in explanation.

ANNUAL ART EXHIBIT



ANNUALLY, after the supply store inveigles the students to part with their pennies in exchange for artists' materials—which said students mutilate into weird forms—and the faculty have headaches over, soul-inspired out-pourings are harvested and stored away in the cupboards. Finally the cream of the crop is chosen. Teachers roll up their sleeves and try to cover all the practice shots on the walls; this activity is generally referred to as the "Annual Exhibit."

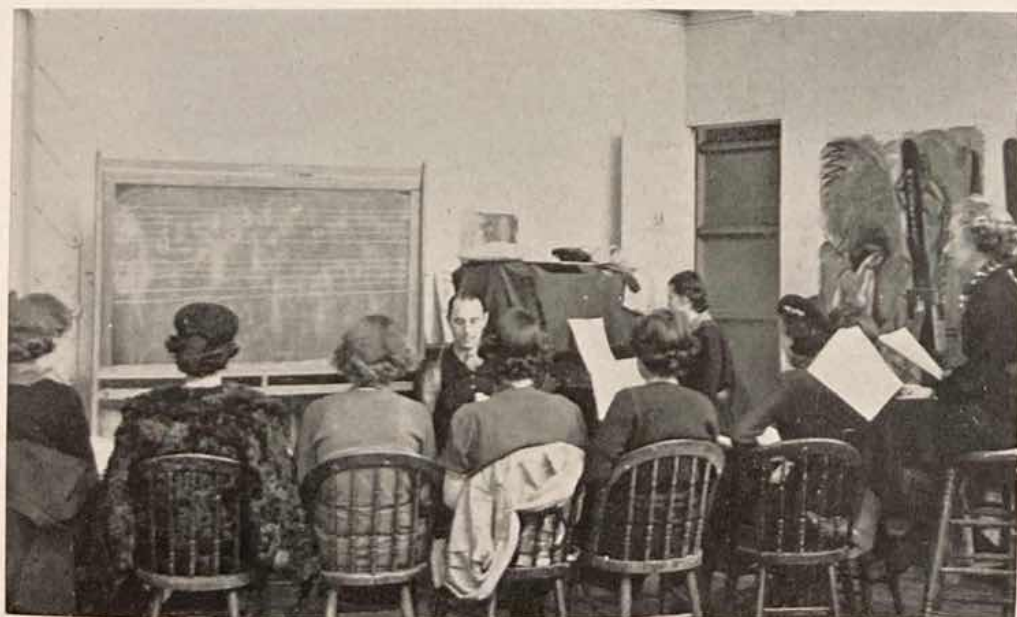
Judging from the comments uttered by the lorgnetted Mrs. Van Slip and Pete, the Village barber, who came to see the works which range from a bashful Freshman's thumbnail sketch to Egan's gigantic cow mural, the 1936 Exhibit was quite an event. The standard of the work hung proved that under the able directorship of Mr. Purves, good ol' Cooper is definitely in the upper bracket in creative output. The Jury, after deliberating on the value of this to that, finally awarded silver medals to Ruth Allen, Elsa Doyle, Doris Grady, Sylvia Sparrow, and Louis Donato. Bronze Medals were presented to Marion Heller, Charlotte Rankow, Helen Rubin, Bernard Sacks, Lillian Williams, and Teresa Woodcock. Numerous honorable mentions to students and whole class exhibits were also awarded. The highest presentation was made to Peter Ostuni for a landscape painting.

THE GLEE CLUB

COOPER'S Glee Club is almost entirely made up of art students with a few males from the engineering department. Rehearsals are held on sixth floor of main building every Tuesday. Under the baton of the patient, competent, and charming Dr. Ravell, four part harmony is fast becoming second nature to us.

Our repertoire is a grand mixture of negro spirituals, Bach chorales, concert songs and folk tunes. Dr. Ravell favors Bach because of the counterpoints and many masterful fine points combined in his music.

Dr. Ravell believes we have the foundations and talents for getting some really fine interpretations. The Glee Club is for many of us a means of expressing our feelings in a musical medium. It is not often that you can get a group of people interested in teaming together on something as worthwhile and beneficial as singing in a group. We have learned that it takes an exceptionally fine musician to perform with others in such a way that he or she doesn't shine out above the others. With chorus work it is the ensemble that counts and it is well to take this principle and apply it to everyday life.



THE DRAMATIC CLUB



THIS year the Dramatic Club grew into an organized and active group. It presented a group of three one act plays, including Tchekov's "A Marriage Proposal," "The Great Suggestion," and an Italian play translated by Mr. Marburg, the director. Under Mr. Marburg's supervision, several students demonstrated unsuspected talent and gave excellent performances. Outstanding in this group were Marshall Anderson, Renee Barnard Dowling, Camille Marten, Emmabelle Cook, and Jerry Sanders.

The smoothness of the productions came as a surprise to the rest of the students, who didn't believe that it could be done. The club had kept its efforts to itself during the year, and no one was conscious of the trials and tribulations behind the scenes. The whole



group cooperated to assemble the properties, make-up, and costumes. This co-operative spirit helped to keep the activity running smoothly, and was necessary to its accomplishments. Mr. Marburg earned the sincere thanks of the whole group. His was not an easy task, but he helped the club to triumph over its difficulties, and made this year's Dramatic Club the first successful acting group in school.



ATHLETICS



ATHLETIC ASSOCIATION

Sheldon Lang

President

Abe Margolin

Vice-President

Elmer Kutzelman

Secretary

Leo Strauss

Treasurer

THIS organization directs all sports, day and night, varsity and intra-mural, in all schools. The activities coming under its scope include Varsity Basketball and Rifle, Inter-class Baseball, Basketball, Swimming, and Waterpolo. Since the Blanket Fee Plan has relieved it from the time-consuming task of collecting money for running expenses, its officers have been able to devote all their time and efforts to the furtherance of the success of athletic endeavor so essential to a really worthwhile college life.

The officers are elected in the previous spring so that they may arrange for the leasing of facilities for the Varsity Basketball Team and for intra-mural sports. The Grace Chapel is used by the Varsity this year while the Christodora House pool and gymnasium afford the rest of the students an opportunity for workouts. The boys have its use two nights a week and, as an innovation this year, the girls, once a week.

The election of officers has been much closer in the past year than heretofore due in part to the much greater interest which students are taking in the athletic program of the school. Last spring the offices of President and Secretary were very hotly contested with the winners being decided by the margin of only one or two votes. Sheldon Lang, member of the Varsity Basketball team for three years, was elected President while Elmer Kutzelman, leader of the '37 Interclass Champions in Basketball was chosen Secretary.

The men elected to the posts of Vice-president and Treasurer were declared ineligible by the Faculty Committee on Extra-curricular Activities. A second and third election were necessary to fill the vacated positions. The men finally elected were Abe Margolin and Leo Strauss. This tussle leads one to believe that the elections for office next year will be an athletic event in itself.

This tendency is to be commended as it publicizes the A.A. to the students with resulting better turnout at gym, games, and meetings. With the precedent of really good inter-class tournaments and better varsity teams, the next few years should see the A.A. adequately filling the need for a sensible amount of athletics

in a school where so little emphasis is placed on athletic endeavor.

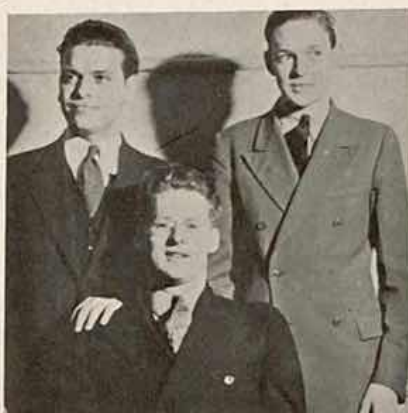
In this respect the Fencing Club and Team, established last year, has provided another sport through which more students can secure much needed exercise and recreation. It has the unique and gratifying privilege of actually practicing and holding matches in the school itself, and as a result will become very firmly implanted in the athletic program here at Cooper. In all probability the Fencing Club and Team will come under the A.A. next year so that close cooperation will be achieved and proper recognition given to its team members by awards of major and minor "C's."

The Christodora House gym and pool was first made available to Cooper students in September 1933 by the enthusiastic efforts and monetary support of the Alumni Federation. In that year and in the year following any students could use the gym and pool two nights and on Sundays after paying the nominal fee of one dollar per year. Previous to that the athletic facilities provided were very poor. The membership fee was as high as four dollars a year even though, in one case, one end of the basketball court was barely high enough to stand up in let alone to play.

In 1934, however, with the varsity practicing at the Christodora House the team did not get enough practice while the rest of the fellows had very little chance to use the gym and had to spend most of their time in the pool. To correct this deplorable condition another gym was secured for the varsity during the past two years. The gym of P.S. 60, used last year, was very unsatisfactory because of its low ceiling which prevented the squad from securing any practice in foul shooting. The Grace Chapel used this year is suitable in all respects so that Coach Laub has been able to turn out a team that has made an enviable record this year.

For the first time in many years, the team has succeeded in winning a good percentage of its games. This has led to an increase in the number of non-players attending the games. This number, it is hoped, will be further increased when the team acquires a home court.

With the aid of the Blanket Fee Plan the essential support of the Alumni is no longer necessary, but the sincere gratitude and appreciation of the Athletic Association and all those who have used the opportunity originally provided so generously by them will always continue.



In charge of baseball, basketball, swimming are I. Leo Goldstein, Howard Kutzelman and Neil Kirby, the poor managers who do all the work.



THE BASKETBALL VARSITY

COACH LAUB issued the call for candidates this November to find himself agreeably surprised when five veterans and a fair number of newcomers turned out. This year, as compared with the last few years, the quintet was able to get much better pre-season conditioning and practice because of the improved facilities available at the Grace Chapel Gym. The varsity had the exclusive use of it two nights a week and its high ceiling made good foul shooting possible.

In previous years it was necessary for Cooper to be led as innocent lambs to the slaughter against some of the best teams in the country for the first few games of the playing season. With the aid of the Blanket Fee such a drastic procedure to secure good guarantees is not necessary to carry the team through the rest of the season. As a result the team starts off the season without the lowered fighting spirit and morale resulting from being completely swamped by teams far out of its class.

Just before the initial game, the team shaped up well with the veterans Lang, Block, Mahoney, Skorski, and Johanny and such newcomers as Adams, Schaffner, and Weinstein in good shape and the coach convinced that this year the team would really be surprisingly good.

After a few weeks of intensive drilling, the team, on November 28, met the Columbia College of Pharmacy. Setting a record auguring well for the

rest of the season, Cooper won its initial game of the season by the score of 26-21. Our five took the lead near the end of the first quarter and then by staving off threat after threat from the opposition in the last few moments of the game opened the season with a bang.

After this auspicious start Cooper dropped the next one to the Brooklyn Central Y.M.C.A. by the margin of one point. The final score was 31-30. The game, played in Brooklyn, proved to be the closest game of the year as Lang and Adams starred. The score seesawed back and forth between the two teams in the last quarter and finally favored the "Y" when the winning field goal was netted with but ten seconds to play. As in many other games the slim margin between victory and defeat was the poor foul shooting. For example, both teams had eleven foul shots. The "Y" netted seven of them, while Cooper made but five. These two points would have been enough for a win by our boys.

To further dishearten those who hoped for a very successful season, Cooper lost the next one to Stevens, a rival of long standing. The game on December 9 with its 25-20 score was no nip and tuck battle as was the previous one, but, instead, the Maroon and Gold trailed all the way in a game featured by lack of scoring. The only time that Cooper threatened was at the beginning of the second half when a field goal by Lang and a foul shot by Block brought the score to 14-13.

But on the Saturday following this defeat, the quintet defeated Bard College at Anandale. A sustained burst of scoring in the last quarter gave them a sufficient margin to overcome a long lead held by Bard to clinch the second victory of the season by the score of 28-23. In the final minutes of the game Mahoney and Adams threw in two vital field goals while Skorski was high scorer with ten points. This game completely shattered the illusion that Cooper can never overcome the jinx by coming from behind to win.

On December 12 the team lost another one to Manhattan by the score of 27-19. Throughout the game there were minutes when the handful of Cooper rooters on



Fred Adams snares the tap from a jump ball while Al Skorski tensely waits for ball to come down.

Ryan of Manhattan gets the tapoff and Captain McGurk (8), high scorer, and Mahoney, right, get set for action.



hand had visions of victory when their team was but one point behind at the half. The relatively small margin of defeat was a moral victory as Manhattan is rated as one of the strongest teams in the East. Lang was high scorer for Cooper with eight points, just two points behind Captain McGurk of Manhattan, the high scorer of the game.

A week later came the victory which completely restored the hopes in the team. Cooper trounced the Brooklyn College of Pharmacy by the rousing score of 41-29. Practically every player had a hand in the amassing of the biggest total of points scored by the Maroon and Gold in the last five years. The game started with our boys going on a spree by scoring ten points before allowing any score by the opposition. In the second half, the second team was given a chance to unlimber itself for a few minutes and did a good job of holding the long lead. In the last part of the game, the first team went back into action and the third victory was clinched with Cooper "going away."

Then started the long string of defeats so familiar to all of the teams from this school resulting from insufficient material, inadequate time for practice, and poor conditioning.

On January 4 after a long layoff, and despite any New Year's resolutions the team might have made, Bergen College won the game at Hackensack by 44-25. As this was a mid-week game, three regulars, who are night men, were unable to be present and the team went down to defeat. The effect of this absence was very clearly shown by the fact that at the end of the half Cooper trailed by only two points. The second half was a far different story as the lack of man power and proper conditioning became apparent and Bergen College scored time after time. However, Adams showed much improved playing, scoring seven points.

Here are the managers, team and coach. Before the game the five look cool; the coach even looks serene. The after-game atmosphere is sometimes sad or perhaps gloomy but it is all in the hands of Fate.



Again, on the Friday following, the team suffered defeat due, in some part, to the absence of the regulars from the night school. The final score was Seth Low 44, Cooper Union 22. Cooper never had a chance with the score 20-7 at the half. In the second half Seth Low scored six points with Cooper coming back with three to make the score 26-10. Here Seth Low turned on the heat and scored ten points in short order. Two baskets by Cooper, a basket by Seth Low, and another basket and foul by Cooper brought the score to 38-17. However three successive baskets for Seth Low made the

score 44-17 with two minutes left to play. In the closing minutes Cooper scored five more points to bring the final score to 44-22.

Once more, on January 18, Cooper again played in New Jersey and lost. The strong team of John Marshall smothered our quintet by the overwhelming score of 52-17. The week after, however, the game with Hudson College also in Jersey City was more of a contest. The final score, 34-32 was only decided by a Hudson College field goal in the final seconds of the game. Such a game brings out clearly the need for proper conditioning, and the smoothness of play brought about only by constant practice. This lack causes many of the games to be reported as "Cooper Leads at Half—Loses Game."

The team stayed in the losing rut and was swamped by Newark University on January 30. The game was decided in the first few minutes of play when Newark ran wild to lead by 19-0. Thereafter Cooper outran, outplayed, and outscored Newark for the rest of the basketball game but the initial handicap of 19 points was too big an obstacle to overcome. Our five wound up on the short end of the 43-27 score. Lang and Block with eleven points each were the outstanding Cooper players.

On February 6, Cooper journeyed to Newark to meet Rutgers College of Pharmacy with high hopes of beating the third pharmacy college this year. Previously the Columbia and Brooklyn pharmacy schools had been taken into camp. The record was no better than last year's as Rutgers won 30-27. Late in the second half with the score 30-16 against Cooper, our team played at a furious pace to score eleven points to none for the opposition. Rutgers was slowly giving ground and if the time had held out a Cooper victory seemed inevitable as Cooper had scored four points in the final moment of play.

A week later on the thirteenth, our quintet again crossed the Hudson and played Panzer College at East Orange, New Jersey. After tying the score at 2-2 at the start of the game, Cooper fell steadily behind and at the half trailed 23-11. The second half started with matters going from bad to worse and Cooper soon found herself in the awkward position of trailing by 34-19. Here a momentary rally that seemed for a moment as if it might lead to something brought the score to 34-24. But Panzer was never, thereafter, threatened and the final score was 38-26. Johanny was by far the outstanding mem-

A wild scrimmage for the ball with a Savage man grabbing it as Adams, at far left, Lang (3) mix in the melée, shows why basketball is notoriously difficult to referee and to properly call fouls.



ber of the quintet in the contest by personally accounting for 16 points. Adams, Lang and Krasnoff scored the remaining 10 points.

On the 23rd of February, Cooper travelled all the way to Trenton to engage Rider College in a hoop contest. The score was 45-26 although the game was much closer than this score might indicate. Cooper stayed with the Blackbirds until the last few minutes of the game. During the first half the score seesawed with the score Cooper 8, Rider 10, until some fancy playing by the latter brought the score to 18-9 at the half. In the second half Rider soon increased its lead to 27-12. From there Cooper came up fast to make it 27-19. Rider called time and then scored four field goals to clinch the game. Thereafter the goals were evenly divided. The Maroon and Gold showed good form with smooth floorwork and ball handling that was on a par with Rider's. The lack of height of all but two of the Coopermen gave Rider a decided advantage which led to our defeat. To equal Johnny's record of the previous week, Skorski with seven field goals and two fouls garnered 16 points to take scoring honors for the game.

The game with Brooklyn Poly has always been one at which the Cooper Union teams have received an enthusiastic welcome.

Under the excellent management of Jerry Varnum and Jim Allaire, this year's basketball team received much valuable guidance and assistance.



This year was no exception as our boys even had some organized cheering to help them along. The first few minutes of play found Cooper gaining an early lead of 7-1. Poly soon tied it up at 9-9. The pace was fast for the rest of the half with the score at 16-15 in Poly's favor at its end. The second half witnessed the strength of the all too familiar bugaboos of Cooper's teams, poor foul shooting and inability to recover the ball off the backboards. The final score was 35-25 to make it Cooper's twelfth defeat in fifteen starts. Poly's victory was materially aided by its conversion of nine of its eleven foul shots as against Cooper's 7 out of 14.

With but Savage and Webb left to play, the season now shapes up as being no more or no less successful than that of last year. Compared to two and three years back, however, when as in 1933-34 only one game in fifteen was won, the beneficial influence of better practice facilities and the scheduling of teams more in our class is obvious.

For the fifteen games played so far this season, Cooper has scored 391 points as against 538 for its opponents. In foul shooting Cooper converted 90 out of 202 tries but the opposition netted 98 out of only 189 tries. In games decided by a mere one or two points this margin in foul shooting is all-important.

Yet in spite of the overwhelming total of points against Cooper, the fact that such a team has been turned out in the face of insufficient practice, poor material, and the very rigid curriculum here in school is very heartening.

The seven high scorers for these fifteen games are Skorski with 92 points, Lang with 73, Johanny with 49, Block with 46, Adams — 52, Mahoney — 29, and Schaffner — 32. Other members of the squad are Weinstein, Long, Krasnoff, Stodt, Abrams, Bateman and Rappaport. The playing habits of the members of the squad are somewhat as follows: Arny Johanny from the Night Art School has been pouring them through the hoop for the past four or five years. He is the most consistent scorer on the squad, averaging seven points a game. His height enables him to hold down the pivot position in able fashion. Meyer Block has been playing varsity ball for four years, and intends to play for at least two more. "Mike" has what is probably the best set shot on the team and is so valuable as a play maker that the coach sometimes brings him back from his forward position to help out beleaguered guards. Fred Adams became a member of the squad in his senior year after a one year's absence from Cooper's court wars. A little awkward at the beginning of the season, Fred rounded out to be the most improved player on the team. John Mahoney, the "fightin' Irish" in person, has had two years on the squad. His performance this year shows that he was sadly neglected in his first. Big John's 6'-2" husky frame has been ejected from more games than the team has won in two years. His aggressiveness was the biggest factor in winning the few games that go on the right side of the ledger. Al Skorski, the season's high scorer, has been playing for the past two years and has averaged over eight points a game. The famous last words of the coach as the team goes out to play have been, "Al, keep your hands off your man." Despite this, Al runs Mahoney a close second in ejections from the game. Sheldon Lang, the acting captain, is a steady, consistent player who has been an outstanding member of the squad for the past three years.

To wind up the season, the team broke even on the Pace and Savage games. The former was easily won by an overwhelming score to the great pleasure of all Cooperites. The final game with Webb, a sure victory, was forfeited by the Bronxites because of an unexpected loss of the use of their home court.

In the Savage game Block desperately leaping for a wild rebound off the backboard looks a bit surprised at something. It certainly does not look as if he got it.



THE RIFLE TEAM

EARLY last May the few remaining members of the Rifle Team, members of the Rifle Club, and a handful of Frosh aspiring to great deeds in the field of marksmanship, met for the purpose of electing new officers, and to make plans for the 1936-37 season. Those elected were S. Eugene Michaels, President, David Horowitz, Vice-president, and Peter Kolesnikoff, Secretary and Treasurer.

The first problem tackled was finding a convenient range suitable for the time available. Receiving but a small allotment from the Blanket Fee Committee, a range could not be hired and the use of one without charge was sought. Armory galleries were already booked and could not be obtained. Finally, however, use of a range at Governor's Island was secured for Saturday afternoons.

Arrangements having taken so much time there remained but two practice sessions before the team started firing in the series of Intercollegiate Small-Bore Matches, sponsored by the National Rifle Association.

All but two of these matches are postal matches. The official 50-ft. targets are mailed to each team, fired at on the home range, and returned to Washington. Ten sets of cards are sent in, each set consisting of three five-bull target cards, one card each for the standing, kneeling and prone positions. The official team score is the total of the five highest individual scores of the ten.

The Metropolitan League had nine entrants this year, making it impossible for every team to have an opponent at any one time. The resultant arrangement was to shoot open dates anyway, scores being paired off later. This put us in the position of having fired many matches but receiving few scores. Of the postal matches

only the one with Stevens Tech was a victory, 1210 to 1139. St. John's surprised us with 1250 to 1105, and the rest disappointed us by delayed scores.

Included in the intercollegiate series were shoulder to shoulder matches with the Brooklyn Poly Tech Night and Day Engineers. Just as the scores of our riflemen started to improve they found the date of the match already upon them. Traveling out to Brooklyn on February 20 the team members found conditions at their opponents range so different from those to which they were accus-

Because of diligent practice, the Rifle Varsity is shooting a great deal better than they did last year.



tomed, that they were thrown off stride, and when the scores were tallied they found themselves on the tail end of a 1239-1136 score.

The Metropolitan League matches end with the shoulder-to-shoulder match against the Brooklyn Poly Day shooters at their range. Upon completion of the local League matches, the teams may enter the National Intercollegiate Championships, which are always shoulder-to-shoulder contests. The hosts are distributed, Yale at New Haven, Carnegie Tech in Pennsylvania, and the Naval Academy at Annapolis.

The superior accommodations and general attractiveness of the Naval Academy lured the shooters to Annapolis last year. A stripped timing gear on the car stopped them twelve miles outside of Baltimore, but not long enough to prevent their arrival in time for evening mess, in the same hall with the Middies. With the air punctured by steamboat whistles and engine room bells, the boys enjoyed an excellent meal, well-served and very generous. A free roaming of the Academy followed, until gravity led to the bowling alleys in the basement. Setting pins for each and unworried by fees or tips, the results were good; Gene Michaels did what he will probably never do again—218.

The five men were given two rooms, with even towel and soap furnished. They came and went freely, with Middies courteous and helpful. Doors are not locked, but nobody worries.

The day of the match just raced along; mess at 7 A.M., practice till lunch, then the match. Thirteen teams were present and shooting, with the Academy coming out first and good old C.U. thirteenth. The men who did their best were John A. Weber, Charles Stumpf, and Bernard Schenker, among the alumni, and Peter Kolesnikoff and Eugene Michaels. They finished up by driving all night in the repaired buggy, to reach New York 9 A.M. Sunday.

The week after the National Matches, St. John's invites the colleges in the league to participate in the Metropolitan Championships at its own range, giving a beautiful trophy to the team which gets three legs on it. C.U. was nosed out of last place in the 1936 match by St. John's. The sportsmanship of our hosts is more than commendable in offering such a trophy, in the light of their own showing.

With but two men graduating, the prospects for next year point toward the team shooting its best scores of many years. The returning veterans will include Michaels, Horowitz, and Olcott.

Gene Michaels, club President, and Pete Kolesnikoff, Manager, trying to squeeze out an extra point.



INTERCLASS BASKETBALL

SINCE the inception of intra-mural sports at the Christadora House one of the most popular activities has been the inter-class basketball tournament. This year the enthusiasm is greater than ever before with four teams from the Tech School and a Night School Team. In last year's tournament the present Senior Class beat all opponents in the Day Tech School and then went on to beat the Night School Team in two contests and received minor "C's" as a result.

The scramble for first place this year is hotter than in last year as no team shows a decisive advantage. All five teams have been beaten at least once so that as the round robin approaches a close the pace is getting faster and the competition fiercer.

The tournament started off on January 12 with the Freshmen handing the Sophomores an unexpected drubbing by the score of 18-20. The Sophs came back in the next game to take the over-confident Seniors, last year's winners, by the score of 22-16 by superior teamwork, and better shooting. A week later the Freshmen proved their unexpected defeat of the Sophs was no fluke by

A player gets ready to sink one. Too bad. He didn't!



decisively defeating the Juniors 34-9. Yet the game was much closer than the score might indicate as time after time the Juniors would have an opportunity to score but could not because of poor shooting and bad breaks. The Owl quintet took the next game by beating the Soph Team 28-12 in a bruising contest in which the smooth coordination of the day men was broken up by the aggressive play of the heavier night men. To further complicate the situation the decrepit Seniors aroused themselves sufficiently to defeat the Night Team 14-8 in a hard played, rough game featured by close guarding and low score. In the very next set-to with the Freshmen the battered Night Team had an apparently overwhelming lead at the half but were forced to fight strongly to finally take the game 27 to 24. The down-trodden Juniors who had been headed irretrievably for oblivion in the cellar snapped into action with Dan Ozvath as the spark plug on both offense and defense and cruelly startled the over-confident Seniors with an upset by the score of 22-18.

So far then the Frost Team, beaten by the Night men, defeated both the Sophs and Juniors while the latter has bested the Seniors. But after the Seniors lost to the Sophs they beat the Night men who had previously defeated the Sophs. Anyone who can unravel this perfect

maze will know the ultimate winner of this tournament. The championship '37 team of last year is no more. But despite the weighty cares of graduation and lack of practice, the Senior class has managed to uncover enough players for a quintet. The much-heralded trio of Krasnoff, Kutzelman, and Bass has suffered an irreparable loss as Al Krasnoff has been graduated to the Varsity. Yet Kutzelman and Bass dyed their grey hairs, unkinked their rusty joints, and with the able assistance of Saul Berman, Danny Okun, Neil Kirby, Ed Scheibel, and Elmer De Ritter, have been able to offer stiff opposition to any would-be champions. Smooth pass-work, form, and experience keep them in the running, but fragility and lack of stamina keep them out.

The Night School has entered a regular team in the tournament for the first time in its history with Sorenson and Mulligan as scoring stars—they scored 22 points against the Sophs, and Bindman, Brickfield, Morrow, and Zelman to round out the team. Faced with the difficulty of making seven o'clock classes the Night men have nevertheless turned out a fast co-ordinated fighting team who, being more matured players than the rest of those in the tournament, stand a very good chance of copping the victory in this year's tournament.

The Junior team, while getting some bad breaks and losing two games, has always managed to be classed as a scrappy team of whom Dan Ozvath is the mainstay with his fast, shifty playing. Ozzie's stellar game against the Seniors proved him to be one of the best players in the entire tournament.

This year the Juniors have the precedent of the last three years in which the Junior class of each year has won the tournament. The Sophomore Team has within its ranks Howie Kutzelman, the general manager of this year's competition, and players such as Harry Donnelly, Jim Allaire, and Thomas, sufficient to give them a smooth clicking five that is a little too light for most of the games.

This year, more so than previously, interclass basketball has furthered the healthy rivalry between class teams that fosters warm friendships born in the heat of competition, friendships much more strong and more natural than the comradeships of class room work made as a result of the juxtaposition of alphabetically similar names or similar lines of engineering.

Neither wrestling nor bowling. 'Tis but interclass basketball. Close guarding as this sometimes makes the game look like mass murder.





AT THE POOL

UP until a few years ago the athletic program at Cooper Union boasted nothing that even resembled water sports except possibly the showers the fellows took after a stiff workout at basketball. With the obtaining of facilities at the Christodora House, the interest displayed in aquatics increased tremendously. In 1933-34 most of the competition at the pool was informal pick-up games of waterpolo, and swimming contests. One formal contest was held in which the then Sophomores, '36, swept the field to capture the swim meet.

Next year, 34-35, financial conditions forced the Basketball Varsity to practice in the Christodora gym. Consequently the students who turned out just to enjoy themselves found that the pool was a very good place to do this. Twice a week then a companionable group gathered in the "bath," pool, to you, to spend a few hours in just fooling around. As a natural result a few keen organizers banded together, drew up a few mutually agreeable rules, and forthwith announced a schedule of waterpolo games and a swimming meet.

With so many fellows to choose from and water polo apparently a "natural," competition became spirited and enjoyable. The Sophomores, '37, with the highly touted "K's" in the lineup beat down all opposition in the Day School. They also scored heavily to win the swim meet. The real fun started when the Night Engineering School managed to collect a trim fleet of dreadnaughts. The Day scored 1-0 to win the first game and in

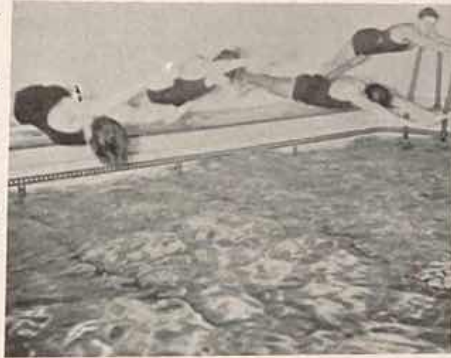
a fierce return match definitely demonstrated their superiority.

This was the year that the teams lost the ball in the middle of a drowning bout. The going got so rough that the rubber of the ball was torn and it sank to the bottom. As a result time had to be called while both teams, the ref, and the spectators prowled around the bottom of the pool, searching for the deflated ball. This year, too, saw the inception of knock down and drag out hot dog and root beer consuming contests. After enjoying a two year period of daring rival mermen to set a new high for number of dogs drowned, a lowly Pioneer editor completely squashed all the fun by setting an all-time record—seemingly impregnable as it now became a heavy financial investment to buy the dogs.

In the 1935-36 season the Juniors ('37) took all water polo games in their stride with only the Freshmen, Sophomores, and Night teams to oppose them. Following the apparently never-failing rule of all graduating classes, the Seniors entered no team. But before the usual advanced senility set in, they pulled a phenomenal upset to snatch the swimming meet from the Juniors. The Night team, a dark horse, showed the spark of their now well-established ability by scoring fifteen points in their first taste of swim meet competition. This year too, Goldstein, by scoring one and only one goal each game, achieved the enviable title of "One Goal Goldie."

This season the Seniors, now sway-backed by four or more tough years of struggling through texts, have lost their seemingly miraculous winning of water polo games. This left the competition wide open and all teams fought hard with the good possibility of winning the tournament as their goal. A game between any two teams is always interesting but the going really gets rough and tough when the Seniors tear into the Nitemen and vice-versa. The series between them is clearly to the advantage of the latter with two victories to one defeat but only the next few scraps will tell the true story of this intense rivalry.

The first blood was drawn by the Seniors. The Nitemen came back to take the next two games. The last one, very



"... Marks! ... Set! ... Bang! ... " A pistol shot, and the mermen are off for some stiff competition.

A well-known Cooper trained seal showing the graceful method of getting wet on leaving terra-firma.



hard-fought throughout, was taken by the Owls' 3 to 1. It was marked by the enforced absence of the Seniors' star player, backbone of the team's offence and defense. With two more tooth-to-tooth water polo matches scheduled, the question of supremacy will soon be clearly settled. Until then charge and counter-charge, all verbal, fill the air.

The other games played to date have seen the Freshmen vanquished in turn by the Sophomores and Seniors. But even in defeat this green team showed great promise for subsequent tournaments provided the members of the squad can satisfactorily meet the bugaboos of all students—lab reports, lecture notes, and quizzes. With no previous knowledge of the game these players have improved remarkably in their first few games. Milt Breitman's inspirational leadership and skillful playing have been a large factor in their bettered skill at legalized ducking.

The Sophomores probably secured more enjoyment, or, shall we say, sweet revenge, by licking the Freshmen than in all other

At the swimming pool, the spectators thought that this diver was showing perfect diving form. What do you think?



games in this or any other tournament. As described by the manager and captain, Howie Kutzelman, "Last year the Sophomore class, then Freshmen, were told to get at least five men together for a water polo team. These five innocent unsuspecting Frosh were horribly slaughtered in their first game. Experience taught this team plenty, and, being gluttons for punishment they came back to win a game. At the opening of this season these same men with the assistance of a few others had the pleasure of dishing out to the first year men just what they had received the year before."

The Juniors, bowed down by the usual heavy scholastic load of all third year classes, have been beaten by the Night team and seem to have little or no chance to finish in the money this year. However, with quite a few games still left to play, Charlie Dohn may still manage to jolt them into winning a few contests for the honor of '38. In the first swimming meet of the year they tied for second place with the Seniors in the face of the far superior array of the Night team, easy winner of the meet. Their outstanding weak spots in water sports is their light weight and lack of any real skill except for Dohn, who is rated head and shoulders above most swimmers in the school.

Outstanding in aggressiveness, playing record, numerical strength, and all-round enthusiasm is the Night Team, recruited mainly from the Sophomore class of '41 by the energetic selling ability of Fred Hamel. Far surpassing last year's record they com-

pletely swamped all opposition to win the swimming meet easily. As the Seniors' Team with such stars as Kirby, Kelemen, Klein, Kolesnikoff, Varnum and "One Goal Goldy" fades into past history, the new ace scoring team of Morrow and Mulligan gains well deserved honor. This year, though, it happens that the entire team comes from the one class. The Night Team is not composed solely of these two but rather depends on team work for winning games. The boys play ball and nothing else, leaving all the arguing, score keeping, managing, etc. in the capable hands of Fred Hamel. This leaves Brickfield, Zelman, Higgins, Deutsh, et al. to the soul-satisfying sport of committing mayhem on opposing Day mermen. When Night teams are restricted to members of a particular year only as now holds in the Day School, the games and suspense of selecting a school champion will become much more interesting and exciting.

The return swim meet still to be held will see the careworn Seniors vigorously striving to prove conclusively their superiority to the Night School Team. The defeats handed to them in basketball and water polo make them vainly recall, to the jeering cries of other teams, the good old days when the Class of '37 won all their basketball and water polo contests.

Last year the co-eds, Art School girls, became acutely aware of the fact that although paying the Blanket Fee they did not receive any athletic facilities at all. After a vigorous campaign by a number of Art School girls the BFC provided gym and pool facilities for them one night a week during this scholastic year. After the necessary physical examination a comfortable number of them proceeded to make adequate use of the gym and pool. Most of the interest was centered in the latter. Here timid misses became graceful divers under the tutelage of the swimming instructor provided by the Christodora House. Each time before receiving hints for superb diving, everyone spends some time in the gym playing a little basketball. Badminton, however, provides the real fun. Spinning the shuttlecock back and forth across the net is also remarkably good exercise.

Swimming has been most appreciated as a recreation rather than as a highly competitive sport, as an opportunity to throw off mental worries for soothing exercise. This moderate mixing of the physical and mental prevent Cooperites from fulfilling the well known definition of an engineer, "One who knows everything about nothing."

Just about everything goes in these water-polo games with all the class teams playing to the limit of their strength and endurance.





SALLE D'ARMES COOPER

IN the fifteenth century an Italian armorer, too engrossed in hammering out a hurry order for a breastplate, made an error in the tempering of the steel for a sword. Much too flexible for a flat blade, the type of weapon then in vogue, our friend reformed the blade, fitted it with a handle, and forgot about it, not realizing that he had made the first rapier.

It was on one of his visits to the armorer's shop (where he came to hasten the work on a new dress helmet) that the duke first saw the blade. At first he was enraged that his artisan had spent time on nonsense, but immediately realized that here was the weapon needed now that heavy armor was useless as a defense against gunpowder.

The duke, after a time, evolved a system of using it against an ordinary sword so that by employing merely a few turns of the wrist and a dexterous movement of the fingers, he could parry his adversary's slashes and plunge his weapon to the hilt before the other had had time to raise a sweat.

The duke was an active man, the times were turbulent, and as a man of any standing at all had at least nine deadly enemies, it was not long before this novel method and the new weapon became well known. How much it could have helped the duke none may say, since he was poisoned by his cousin who was fat and had never learned how to fence. The old-fashioned flat blade remained a battle weapon, but to settle disputes between gentlemen was entirely too crude. The rapier, or small sword, gained in popularity until the French Revolution, when dueling lost its adherents much as the nobility lost theirs.

Fencing with foils (similar to rapier but with a metal or rubber tip instead of a point) had, of course, long been established as a training for the real thing, but not until the decline of dueling was it considered a sport for its own sake.

While the foil is the basic weapon, a higher development of it is the *épée* or dueling sword, which is inflexible, and is tipped with three prongs. The target for *épée* unlike that for foil, is the entire body, rather than just the torso. Three touches instead of five win a bout. A third weapon is the saber, an adaptation of the curved cavalry sword. It is lighter, has a dull edge, and points are scored by hits with the blade as well as with the point.

Although devotees of other games say that fencing is for

those too light for football, too short for basketball, and too timid for water-polo, any fencer will tell you that no other form of athletics requires the same amount of thought, action, speed, balance, and coordination.

A fencing club was first formed in Cooper Union in January 1936. The club members met once a week on the sixth floor in the Art School at four o'clock and engaged in practice bouts with foils. At the end of the year a women's round robin competition was won by Frances Levy who defeated Marie Sariego, the runner-up, by the score of 5 to 4.

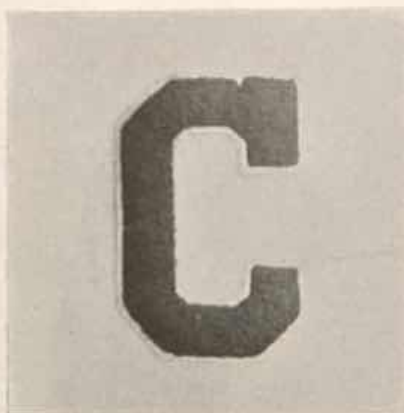
With the new school year the fencing club resumed activities and the call for novices was answered by a most encouraging turnout. Even at this writing some bouts sound more like a butcher sharpening his cleavers than like a gentle sport. Amazing extravaganzas of movement accompanied by resounding clashes rather than the smooth swift movement, the click-clicks and "Ho La's" of the expert.

Mr. Ehrlich, an assistant coach at the Greco Fencing Academy, has been of invaluable aid to the club, encouraging competition with other clubs. Permission will be asked to form an official team for the season of 1937-38 if its record of informal matches during this season is of sufficient merit. Next year, with good expectations for a full team with all three weapons, Cooper Union may soon be represented on the Inter-collegiate Fencing Strips.

It is unfortunate to the Cooper Union fencing team that Dale Robinson is not eligible to fence in its name. Robinson is ineligible by virtue of his having won ranking in the Junior National Championship. However, the club benefits from his experience by practising with him.

"... Et La!" cries the graceful young lady in the culottes as she makes a telling touch high on the chest of her adversary in a practice session in the Art School.





ATHLETIC AWARDS

VARSITY "C"

BASKETBALL

Fred Adams
Meyer Block
Arnold Johanny
Sheldon Lang
John Mahoney
Al Skorski

RIFLE

Dave Horowitz
Frank Kelemen
Pete Kolesnikoff
Gene Michaels
Bernard Olcott

MANAGERS

Neil Kirby, Swimming
Jerry Varnum, Basketball

MINOR "C"

BASKETBALL

Al Krasnoff
Herman Long
Irving Rappaport
Charles Schaffner

RIFLE

Morton Sachs
Sid Swertloff
Louis Zernow

MANAGERS

Jim Allaire, Basketball
Howard Kutzleman, Basketball
I. Leo Goldstein, Baseball

NUMERALS

SWIMMING

Stanley Bindman
Edmund Brickfield
Charles Dohn
Fred Hamel
Wilmar Higgins
Neil Kirby
Gerald Morrow
Robert Mulligan
Charles Sorenson
Alfred Zelman



SOCIETIES

EX POST FACTO

EX Post Facto is an honorary organization consisting of those persons on the Cable Staff who have worked hard in its production. This year the editors decided to inaugurate stiffer requirements for membership to that organization. Thereupon, three of them met at the famous German American Club to confer on this matter. One look at the eighty-five ounce glasses of the foamy lager, which the customers were consuming, caused the confreres' tongues to dry up. "Quick, Fritz!" they cried to the waiter, "bring each of us one of those bathtubs of brown brew, else we die of thirst!" And thereupon they made the following decision:

To wit: "Let it be hereupon resolved that the Editors of the 1937 Cable agree to make more difficult, and worthy, the requirements for membership to that honorary organization known as Ex Post Facto by the inclusion of the task, delight, or herculean labor of quaffing, sipping,

imbibing, and insertion into the gastronomic organ of any person desiring to enter the aforementioned organization, of not less than one eighty-five ounce cup of the foamy, golden ochre, spirit of life, known in the vernacular as beer; and the said person shall not arise, fall over, or on any way remove the party's carcass from the place where it was set on the receipt of the glass; until he, she, or it has completely drained, consumed, and bloated him, her, or itself thereof."

By dint of hard labor and much self-control the three editors won the keys signifying membership to Ex Post Facto.

Alas the day! It was found that some lowly staff members had superhuman capacities which could easily outdo the editors, and, in order to prevent shame falling on the latter, the original system was used to choose the members. Those who fulfilled the requirements are given below.



FRANK KELEMEN
ALBERT RUSSO
ROBERT GUNDLACH
WILLIAM VREELAND
ROBERT UMBDENSTOCK
CORNELIUS KIRBY
TERESA WOODCOCK
GILES GREEN
WILLIAM McSHEA
CAMILLE MARTEN
EMMABELLE COOK
HERMAN HORNICKE
GERALD VARNUM
ALLISON SCOTT
EILEEN PATTON

LAMBDA TAU

IN the wee small hours of a Saturday morning in the year 1934, a group of seven young men, who had just tucked the Cooper Union Pioneer in bed, gathered for their usual chat in a nearby cafeteria.

Out of this gathering grew the informal beginnings of Lambda Tau, the honor organization of The Pioneer. The formal organization took place in November 1935, when the constitution was drawn up and accepted.

The purpose of Lambda Tau is to promote cooperative and friendly relations among the members of the staff of The Pioneer and to endeavor to develop the highest standards of collegiate journalism.

The membership of Lambda Tau has grown to over thirty members, both active and honorary. Heading the list of sixteen honorary members is Prof. Norman L. Towle, faculty adviser. Many of the honorary members have graduated but are neverthe-

less still members of the organization because of their contributions while on the staff of The Pioneer.

The active members are those who by their contribution of time and effort to the betterment of The Pioneer have shown themselves worthy.

The officers, themselves active members, are elected by the active members at a meeting held after the first month of the school year. The officers for the current year are David Klein, Chancellor; Teresa Woodcock, Vice-Chancellor; Gerald Sanders, Exchequer, and Allison Scott, Recorder.

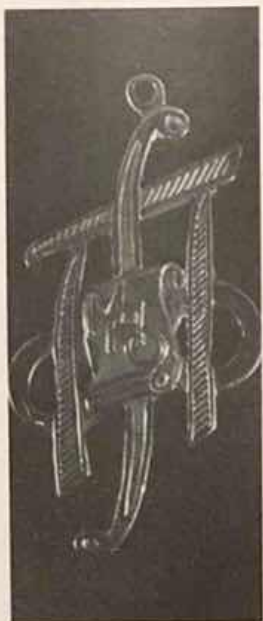
To all new members of Lambda Tau is awarded the Lambda Tau pin at the annual Pioneer dinner in May.

Great quantities of nourishment, including filet mignon, were set before the company on the long tables at Nikolaus' where the organization met. Most of the after-dinner speeches were gently heckled into oblivion, each of them having been a sad attempt at humor.

DAVE KLEIN
TERESA WOODCOCK
ALLISON SCOTT
JERRY SANDERS
E. PALMER ALLEN
FRANK QUATTLANDER
HARRY ROBBINS
LORRIE VANDERBILT
I. LEO GOLDSTEIN
JACK SONBERG
DAN A. OKUN
MARVIN WEISS
NATHAN RICHMOND
RAY BENDETT
SOL TANNENBAUM



MU ALPHA OMICRON



Giles Green

Chancellor

Gerald Varnum

Bursar

Alvin Schallis

Scrivener

THE need for organizing a society to cement bonds of friendship among the students who had clearly demonstrated their outstanding scholarship, integrity of character, and breadth of vision, was long felt by students and faculty alike.

In cognizance of this requirement, the faculty commissioned five outstanding seniors of the class of '26 to found an honor society which would afford ample opportunity for directing the application of these fine qualities, prerequisite to admission to the society, to the most profitable fields of endeavor in both the Society and the school as a whole.

In accord with these aims, the Alpha members this year decided to award a prize to an outstanding member of the Sophomore Class. The basis of the selection is scholarship, character, and extra-curricular activity. Engineers being rather practical, the decision of these engineers was to make the prize a handbook.

Of the eleven present members of the Society, seven are Chemical Engineers. Among these is Alvin H. Schallis, the Scrivener. He is the fellow who handles the Society's correspondence, in which occupation he gained no little experience in the use of a typewriter—much to his dislike. Gerald F. Varnum, the Bursar of the Society, handles the money. He seems to have a mind for business since among his many extra-curricular interests, he is manager of the basketball team and advertising manager of *The Cable*. Ernest V. Anderson is another ChE. A good natured fellow with an infectious grin, Ernest is well liked by all those with whom he comes in contact. He is a country gentleman hailing from somewhere out in the woods of Long Island. Saul Berman is the newspaper man in the Society. It fell to his lot to write articles describing the Society's meetings in *The Pioneer*. He proved himself a credit to M.A.O., writing many masterly pieces for the publication. Lawrence O. Pietila busied himself this year with the doings of the A.I.Ch.E., being the President of the student branch. Though quite serious in thought and speech, he has won the friendship of his class. Donald Deed is quiet and soft-spoken and possesses, strangely enough, a

fine head of bright red hair. Although not the sort to demand instant command of one's attention, his well-mannered ways soon win him the respect of his acquaintances. Frank Hashmall is best known to the student body through his eloquent "letters to the Editor" printed in *The Pioneer*. When certain of his correctness, Frank does not hesitate to suggest that the students investigate his ideas. In the Society, he served on the Sophomore Award Committee.

This year there are but two Civils and two Electricals in the Society. Daniel Okun, a prospective civil engineer, is quite active in extra-curricular affairs. Besides being President of the General Student Council and Business Manager of *The Pioneer*, Danny plays on several interclass athletic teams. The other C.E. is Giles Green, the Chancellor of the Society. Giles, like Danny, has had quite an active year, having held the offices of Vice-president of the A.S. C.E. and been Chairman of the Cap, Gown, and Key Committee besides being the chief pilferer of the candid camera photos appearing in *The 1937 Cable*.

The two Electricals are Leonard Becker and Irving Margolis. The fact that Leonard speaks with a drawl, is no indication that he is a drawling thinker. Although not what is commonly termed a "bookworm" he is invariably seen with his briefcase. Irving Margolis is the boy with the wavy black hair. Irving is the baby of the Senior Class, though quite mature in thought. He has the distinction of being the youngest Senior graduating this year.

The future of the Society looks bright indeed. With the recognition of Night Engineering School now an actuality, M.A.O. will soon list Night men among the fratres. Plans for even wider activity of the Society in school affairs are already being formulated. It is hoped that the near future will see M.A.O. united with the national engineering honor society Tau Beta Pi. However, whatever its future may be, it is to be hoped that the scholarship and character of its members will remain on as high a plane as it has since the inception of the Society.

Membership in the society is permanent, graduates becoming members of the Beta chapter. Among its illustrious Beta chapter members, the society includes several of the faculty who are Cooper graduates.

A few of the intelligentsia gathered in the Students' Library. Standing, Left to Right: Irving Margolis, Leonard Becker, and Giles Green, Chancellor. Seated: Daniel A. Okun, and Ernest Anderson.





Math. Club Officers; Charles Pinzka, Leo Schumann, Ted Berlin.

MATHEMATICS CLUB

Leo Schumann
President

Theodore Berlin
Vice-President

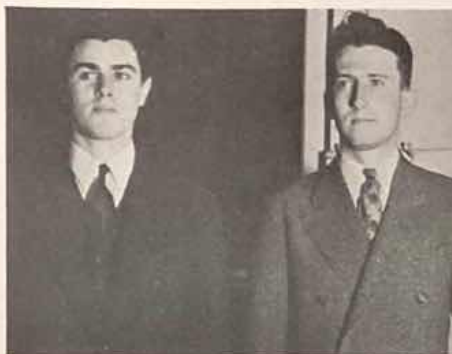
Charles Pinzka
Secretary

THE Mathematics Club of the Institute of Technology boasts of having more members than any other voluntary student society in the school. This is not all surprising because the Tech students were almost invariably the "math wizards" of their respective high schools. Not content with the regular mathematics curriculum, which is truly one of the finest in this country, many find a highly satisfactory outlet for their ruling passion in this organization. An attempt is made to interest all, no matter how advanced in the science they may be. A special Mathematics Library has been established, and forms a valuable aid to various investigations and researches.

The general procedure for lectures before the club has been sustained. The first lecture, which has become an institution at school, is on the use of the slide rule, given this year by Mr. Green. The interesting subject of Vector Analysis was introduced by Mr. Reff, followed by a lecture on the Calculus of Variations, delivered by Mr. Anderson. Mr. Nudd, a member of the E. E. Faculty, gave a splendid talk on Tensor Algebra. Various others are scheduled to be given by the officers of the club. The general purpose of these talks is to stimulate interest in the topics. Lively discussion usually follows each lecture. Practice in the delivery of these papers also has its advantages in developing confidence and ease before an audience.

The Math Club is not without its share of fun and sport. This year we were fortunate in having three funsters as our officers, namely, Schumann, Pinzka, and Berlin. These three have the rare combination of wit and mathematical genius, and their antics have enlivened many a session which otherwise might be on the dull side. All in all, the past season is unanimously considered highly successful.

THE AMERICAN SOCIETY OF CIVIL ENGINEERS



Sanford Koretsky
President

Giles Green
Vice-President

Sol Tannenbaum
Treasurer

The ASCE's Vice-President, Giles Green,
and President, Sanford Koretsky.

THE activities of the Cooper Union Chapter of the A.S.C.E. can be divided into two classifications, those carried out by the chapter itself at the school, and those it participates in as a member of the Metropolitan Conference of Student Chapters.

The activities at the school consist of chapter meetings—held about once a month—and an annual dinner. The meetings are devoted to the usual business which arises in the course of running the chapter and at each meeting there is usually a guest speaker. Of late there has been considerable interest in making field trips and in having student debates or forums at the chapter meetings. Undoubtedly these activities will be participated in more and more in years to come. Professor Foss, Faculty Adviser, and Mr. Yates, Contact Member, were prominent in assisting the chapter in obtaining guest speakers and providing interesting meetings.

The Metropolitan Conference of Student Chapters of which the Cooper Union Chapter is a member, has two large meetings each year. These are called the Fall Conference and the Spring Conference. All the member chapters participate. The Fall Conference is devoted to an exchange of student opinion on chapter problems as well as short talks by guest speakers. The smoker and collation following the conference is always of interest to the students. The Spring Conference is devoted entirely to the presenting of student papers. Each of the member colleges is represented at this conference by a student who presents an original paper. The audience acts as judge and prizes are awarded to the two best papers. Skits and entertainment presented by students are always a feature of this Spring Conference.

Thus the members of the Cooper Union Chapter enjoyed a full program throughout the year which served to give them a better understanding of the Professional Society as well as an opportunity to become acquainted with many engineers.



The officers, in order: Treasurer, Chairman, Secretary, and Vice-chairman.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Cornelius Kirby
Chairman

Richard Oldham
Vice-Chairman

Albert Budde
Secretary

Alexander Matiuk
Treasurer

THE A.S.M.E. Student Chapter, organized in 1920, has since then been instrumental in bridging the gap between classrooms and the realities of practical engineering by filling the need for new outlooks which so many students feel are necessary when the continual round of textbook study begins to wear down the fine edge of the ambition to enter the Engineering Field. This purpose is achieved by the presentation of student papers and opportunity afforded members to actively participate in student branch conventions and of attending meetings of the Metropolitan Section.

As the student has so little opportunity to give original papers, the meetings are given over almost entirely to the presentation of such papers with the final aim in view of selecting the best one for delivery at the annual spring convention of the student branches. Last year Fred Korn was picked as that representative speaker.

Highlights of this year's meetings; James Brady's paper on the manufacturing and processing of sheet metal. The meeting at which Dr. Felix Iserman of the Leipzig Trade Fair told of the lines along which Engineering Progress in Europe is developing and then he showed some very worthwhile motion pictures of machine tools as exhibited at the world famous annual Leipzig Fair. Sid Swertloff contributed largely to the social life of the chapter by reviving the M.E. Christmas dinner for all the Mechanical students in the Institute of Technology. In February, the branch had the honor of playing host to the seven other student branches in the Metropolitan Area and the Junior Group at an informal smoker of which Cornelius Kirby was chairman. The rest of the year was taken up with plant visits and the Spring convention at Rutgers. The activity of all the student branches at Cooper this year makes it very probable that a joint meeting will be held in 1937 and that it will enjoy the success such meetings have met with in the past.

THE AMERICAN INSTITUTE OF CHEMICAL ENGINEERS



Lawrence Pietila
Chairman

John Gumbrecht
Vice-Chairman

Philip Rennolds
Secretary

Ruth Katz
Treasurer

Day Officers; R. Umbdenstock, C. Miller,
L. Pietila and P. Rennolds.

CHIEF among the reasons for the success of the Cooper Union Student Chapter of the A.I.Ch.E. during the past year was its greatly increased membership. The Night Branch, formed in the last months of the previous year, has done well, thanks to the able leadership of its officers. These are John Gumbrecht, Chairman and Chapter Vice-president; Marco Kusewich, Vice-president; Ruth Katz, Treasurer of branch and chapter; and Herbert Bahrenburg, Secretary.

The Day Branch was incorporated in 1928 as the twelfth student chapter of the A.I.Ch.E. A Night chapter was organized at the same time but was discontinued in 1932. Last year, however, interest was revived. A realization of some of the aims of the founders is seen in the well-attended and lively meetings. "The Place of the Chemical Engineer in Medical Science" was a topic discussed by a speaker from The Rockefeller Institute at an especially noteworthy meeting. A joint meeting with the day branch will be one of the highlights of the year.

The Day students have managed a varied and interesting program of events during the past year, including active participation in meetings, the annual Freshman Reception, and the A.I.Ch.E. Contest Problem. A feature of the day meeting which is emphasized is the presentation of papers by students. The active discussion which followed "Subatomic Phenomena," by Louis Thoman of the third year class made it imperative to consider student speakers as a permanent feature of our activities. Dr. Warren Findley spoke at the January meeting on "The Method of Least Squares." This meeting was well attended by an audience which reveled in the mathematical acrobatics. Lively discussion followed the talk.

The officers of the Day chapter are Lawrence Pietila, Chairman and Chapter Chairman; Robert Umbdenstock, Vice-chairman; Philip Rennolds, Secretary and Chapter Secretary; and Charles

Miller, Treasurer. Next year's Chairman and Secretary will be chosen from the Night branch and the Chapter Vice-chairman and Treasurer will be members of the Day school. Mr. Kunz, as counsellor to both branches, supplies the qualities of age and experience to the chapter policies.

The Metropolitan Student Chapters which have held several conclaves in New York, blossomed forth at a gala meeting at The Brooklyn Polytechnic Institute. It was attended by students from Cooper Union, New York University, City College, Columbia, Newark College of Engineering, and Princeton. Student speakers vying for prizes in the paper contest, plant visits, banquets, and formal meetings provided sufficient incentives for the maximum participation in the activities of the occasion.

The pièce de resistance in the line of entertainment and good fellowship was the annual Freshman Reception. The bit of magic which always occurs at these gatherings is the disappearance of a great mound of doughnuts with the aid of large volumes of coffee. Of course, the entertainment end of the program suffers no neglect. The pyrotechnical pranks perpetrated during the course of the evening deserve their fame. Mr. Szymanowitz, an instructor in the Night School, provided the movie entertainment, consisting of color-processed reels which he "shot" in Bermuda and Nova Scotia. Ed Scheibel master-minded in a comic lecture on "Water," or "Vassar" as he put it, and was ably stooged by "Jeep" Kolesnikoff in the character of Herr Razor.

Following this, the same evening, the Seniors, departmental professors, instructors and some friends embarked on an evening of fun at the Radio City Bowling Alleys. Here, after a hearty repast there followed a number of speeches by faculty and students, and, upon choosing teams the slaughter (of the pins) was on.

The annual student contest problem was something in the nature of an extra kick where it already hurt the most. The sustained

Ruth Katz, Treasurer, John Gumbrecht, vice-chairman and Herbert Bahrenburg.



effort of three weeks' duration sidetracked all other issues. The feat of winning two prizes in this year's contest, as was done last year, has been freely predicted. Last year's winners were Henry Staaterman, first prize, and Charles Leyes, honorable mention.

There is much pointing with pride these days to the fact that a majority of last year's graduates have found jobs. Such a situation does much toward imparting rosier hues to the day dreams of the present graduating class.

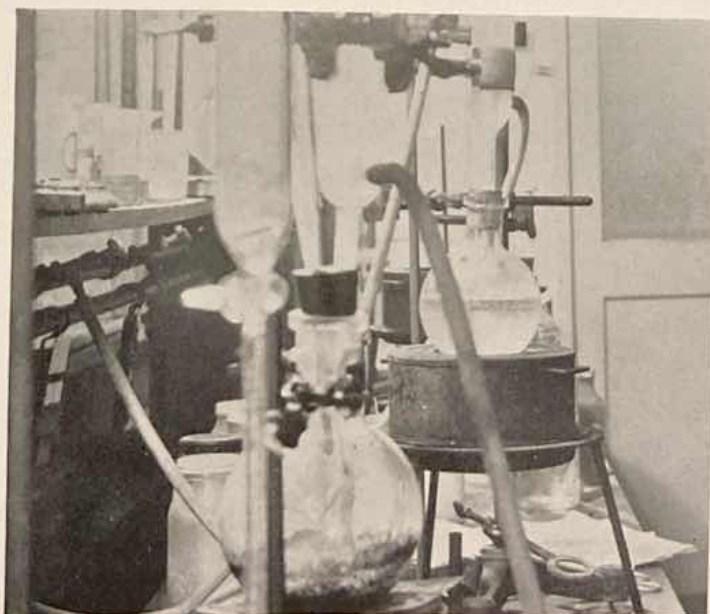
CHEMICAL ENGINEERING

—PROF. ALBERT B. NEWMAN

IT is difficult to define chemical engineering. A definition is: Chemical engineering is concerned with the development and application of manufacturing processes in which chemical or physical changes of materials are involved. These processes may be resolved into a series of physical operations and chemical processes. The work of the chemical engineer is concerned with the design and operation of equipment and plants in which unit operations and processes are applied.

Some chemical engineers have said that "process engineering" would be a better description of chemical engineering, and point out that the chemical engineer is more concerned with the application of physics than with that of chemistry. Quoting from a noted engineer: "The chemical engineer is concerned either with physical operations, or with physical effects of reactions, such as in fluid flow, mixing, etc. To obtain a marketable product, further operations are involved, such as distillation and drying."

At Cooper Union, we are trying to teach chemical engineering according to the most modern methods. Our recent graduates have told us that we have a good curriculum, and their records in industry confirm their statements. A fine future is in prospect for chemical engineering at Cooper Union.



In his many years of intensive study and experimentation, the Chemical Engineering student comes in contact with many unusual laboratory set-ups.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

NIGHT CHAPTER



William Vreeland
President

Herman Hornickel
Vice-Chairman

George Phillips
Secretary

Effingham Kettleman
Treasurer

Officers; G. Phillips, E. Kettleman, W. Vreeland, H. Hornickel.

THE curricula of the engineering courses in The Cooper Union, while offering very thorough training in a technological way, can give no thought to the practical aspects of engineering. It was to remedy this situation that the Night Student Branch of the American Institute of Electrical Engineers was organized in Cooper Union three years ago.

Membership in the Student Branch of the A.I.E.E. assists the student in acquiring that broader knowledge of the field which comes from his association with men already prominent in the profession. Attendance at lectures, both at the Cooper Union Branch and at Headquarters, insures his making many valuable contacts.

At the first meeting of the year, the Branch officers were elected. These men, W. G. E. Vreeland, President; H. C. Hornickel, Vice-president; G. M. Phillips, Secretary; and E. V. B. Kettleman, Treasurer, then set about planning a very interesting program which was carried out during the past year. It was decided that since so many of the members held positions in the Electrical Engineering field, it would be desirable to have those students so qualified and inclined, present papers on that phase of the profession in which they performed their daily chores.

All our hopes and expectations were vastly exceeded by the results. The response to the call for voluntary speakers was met with a veritable landslide of offers. The Papers Committee handled these requests and allotted a time to most of the applicants. That many visitors were present at these talks bears mute testimony to the success of the program.

Through the medium of open discussion and the presentation of a paper, the student acquires experience in expressing his views and opinions clearly and forcefully. From the journal, "Electrical Engineering," he is kept abreast with the latest developments in his profession.



AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

DAY CHAPTER

Al White
President

Stanley Danko
Vice-President

Hamilton Gaillard
Secretary

William McShea
Treasurer

Officers: Seated: S. Danko, Pres. A. White. Standing: W. McShea, H. Gaillard.

THROUGH the efforts of the E.E. upper classmen, the Day Division of the A.I.E.E. was re-organized in the fall of 1936. Our President and Vice-president, both seniors, are Al White and Stan Danko. Two juniors, Hamilton F. Gaillard and William T. McShea, occupy the posts of Secretary and Treasurer. The success of the organization may well be measured by the spirit with which the aims and ideals of the Society have been furthered by the varied program developed by the members.

Membership in the Institute opens the way to a better understanding of the Electrical Engineering Profession. One such opportunity lies in the schedule of field trips arranged for the students. A visit to the Hudson Generating Station, with its roaring turbines, immense steam units, and gigantic scale of power generation left the E.E.'s greatly impressed. The tour of the Hell Gate generating station, as well as the inspection of the Long Lines Building of the A.T.&T. were also well enjoyed.

The A.I.E.E. meetings are often the place of presentation of papers on divers subjects by the students and faculty members. Mr. Tallman, our faculty adviser, lectured on the Strobotac. W. McShea discussed the Cathode-ray Oscillograph, and L. Schumann explained a graphical analysis of an A.C. machine. A talk by Paul Ast on a Harmonic Generator proved highly interesting. These and other occasions provide a fine ground in which the students can gain experience in the exposition of individual viewpoints, as well as familiarity with the speaker's role. Membership in the Branch Society also offers the advantage of participation in the activities of the National Society, which sponsors frequent lectures and field trips, and naturally leads to full National membership after graduation. A student who is a member of the chapter has the opportunity to make the acquaintance of engineers in the field through this contact with the Parent Society.



OMEGA DELTA PHI

CHAPTERS

Alpha	Cooper Union Night
Beta	Brooklyn Polytech
Gamma	N. Y. U. Commerce
Delta	Cooper Union Tech
Epsilon	Brooklyn College

FRATRES IN FACULTATE

Prof. H. C. Enders
Prof. Karl Hauptmann
Otto C. Puller
C. George Kreuger
R. J. Kunz

FRATRES IN COLLEGIO

George F. Ackert
Frank W. Albrecht
James V. Brady
Gregory Brooks
Edward H. Burger
William P. Cole
Alfred E. Danner
Howard Fensterer
William Fitzpatrick
Bernard A. Fleck
Thomas J. Frascella
T. Nelson Gilbert

John J. Fiala
Sherman Glass
John W. Gruol
Francis Lefeber
Bernard F. McLaren
William T. McShea

Charles E. Gorman
John O. Gumbrecht
Oscar Kummer
C. Raymond Nelson
William G. Pfann
George M. Phillips
Rosario Previti
John A. Roberts
Eugene Rosenberg
Fred W. Schmitz
T. Edward Thorsen
Edward G. Walsh

Eugene Michaels
William Moore
Albert Russo
Harry G. Taylor
Robert Umbdenstock
Gerald F. Varnum

OMEGA Delta Phi Fraternity was founded in 1903 by seven Cooper Union Night School Students, in order to strengthen and perpetuate the friendships they had formed at their Alma Mater. The Fraternity grew so rapidly that the charter members, among whom was Professor Karl Hauptman of the Physics Department at Cooper Union, realized the necessity of providing an outlet for the older members of the Fraternity in order to facilitate the management of the organization. Accordingly, an Alumni Organization was formed five years after the founding of the original body, thereby forming a chapter into which the more mature members were regularly admitted. The activities of the body as a whole increased to such an extent that the need for incorporation was foreseen, and in 1913, the fraternity was granted Articles of Incorporation by the State of New York.



The sine qua non of a well-equipped fraternity — the back report file.

The activity of the Fraternity was by no means limited to The Cooper Union and in view of further expansion, the original night school body was granted a charter in 1915 as the Alpha Chapter of Omega Delta Phi Fraternity, Incorporated. Shortly thereafter, in the same year, the Beta Chapter at Brooklyn Polytechnic Institute was formed and granted a chapter.

These chapters set themselves diligently to the task of strengthening their fraternal bonds, and, after careful selection, another chapter was added to the Fraternity; in 1925, Gamma Chapter at the New York University School of Commerce was granted its charter.

With the establishment of a Day School of Engineering at Cooper Union, it was inevitable that a brother chapter to the original body would be formed, and in 1928, the Delta Chapter in the Institute of Technology at Cooper Union was granted its charter.

Continuing its careful and selective expansion, the incorporated body admitted the Epsilon Chapter at Brooklyn College into the Fraternity in 1935, thus bringing the total number of chapters at the present time to five in addition to the parent organization, Omega Delta Phi, Incorporated. Although expansion of the Fraternity is welcomed, it is done only after exhaustive and detailed examination of the applicants for a new chapter, in order to determine if their ideas and ideals are one with those of the founders.

The Fraternity is justly proud of the accomplishments of its brothers both while in school and in later life. Omega Delta Phi men rate high in Cooper Union, both in class work and extra-curricular activities. As evidence of this, the Cooper Union Foundation's highest award, the "Silver C," received by students participating in



One of the pleasant interludes for the fraters between classes.

extra-curricular activities of benefit to the school, has been awarded to three of its members, while many of its men have won the "Gold C."

Omega Delta Phi is by no means entirely a social organization. It parallels the requirements of Cooper Union by demanding evidence of satisfactory scholastic standing as one of the prerequisites of admittance to membership; and aids greatly in helping the men to retain this standing as every member is only too glad to be of assistance to his fellows.

The Fraternity not only aids the brothers in their scholastic ambitions, but also helps them to round out their social life. At Cooper,

campus activity is necessarily greatly curtailed, but the need for contacts other than those obtained directly in class is denied by no one. The Fraternity gives the opportunity for just such social contacts.

The calibre of the men of Omega Delta Phi is reflected in the responsible positions they attain in their chosen profession upon graduation. Their vocational activities have taken them far afield and our rosters show addresses of brothers at present in Central America, South America, Europe, and in every part of North America. At the Christmas Season the bulletin board in the Fraternity Rooms is covered with holiday greetings from nostalgic brothers.

The Fraternity Program for the year calls for a meeting once a month for the active chapters, numerous parties and smokers, two formal dances and one annual convention. In addition, the Fraternity Rooms are always an "open house" for any occasion that may present itself to the brothers and their friends. The rooms of the Alpha and Delta Chapters are at 4 St. Marks Place, one block from the

A helping hand from an upperclassman can always be had at the Frat House.



Cooper Union Foundation Building. The other chapters hold their meetings in their own Fraternity Rooms closer to their respective colleges. The quarters are generously proportioned and are ideally suited to informal parties, smokers and gatherings, which afford an outlet to the pent-up spirits of the brothers after days of application to the grind of studies.

The leading hotels in the city have at one time or another been host to Omega Delta Phi at its formal dances. These dances are the high spots of the Fraternal

Year and are looked forward to with eager anticipation.

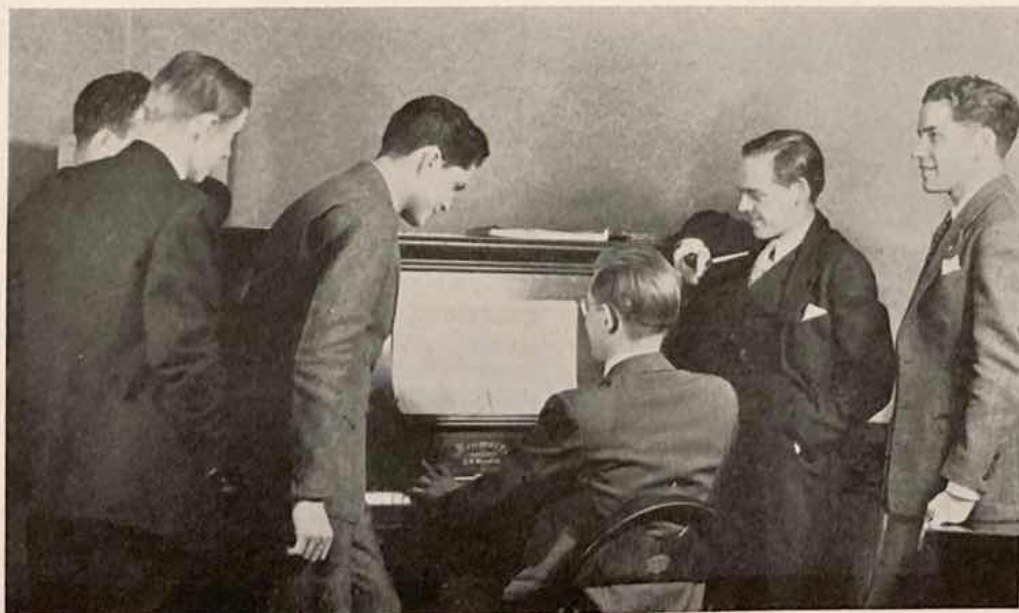
In June, at the end of the school year, the Annual Convention is held. It is there that the loyalty of the older men of the Fraternity is plainly evidenced from the numbers in which they turn out to renew old friendships and make new ones. The Convention consists of a short business meeting and a full day of tennis, swimming and golf, crowned by a banquet and bull-session in the evening and "so far into the night——."

The members of Omega Delta Phi have always been known as men of character, respected by fellow students and the instructing staff, have always been leaders in scholastic and extra-curricular activities, and have further brought glory to their fraternity and Alma Mater by their outstanding activities in the engineering profession. And so it shall be that Omega Delta Phi Fraternity, rich in tradition and proud of its members and their achievements will continue on, seeking more new friends and creating new traditions for the members to come and uphold. It is this deep lying feeling in the mind of every member of this organization that endears it to each and every one of the brothers.



A crucial moment in a pool contest between some of the boys after a hard night at school.

A sextet of the frat brothers harmonizing on, "for we are the sons of Omega Delta Phi."





PHI SIGMA OMEGA

FRATRES IN FACULTATE

Edward A. Miller
Austin J. Purves, Jr.
Charles O. Roth, Jr.
Joseph J. Tanzola
Miles H. Van Buren

MASTER'S COUNCIL

Grand Master	George O'Brien
Deputy Grand Master	Charles A. Hauck
Recorder	George Bartelheim
Exchequer	Frank Vanek
Prelate	William Webster
Steward	Edward Walsh
Chancellor	William Walker
Warden	Herman Woebcke
Sergeant-at-arms	Herbert Bahrenberg

FRATRES IN COLLEGIO

ALPHA CHAPTER

Stephen Alessi	Joseph Larkin
Anthony Ancona	Andrew Levada
Herbert Bahrenberg	Laurence Lindquist
Herman Decker	Frank McGinnis
Frank Delassalle	Patrick McGiver
Fred Dreschler	Henry Nelson
Clinton Eckel	Anthony Nesti
Charles Grebert	Alexander Shiskow
Edward Grohse	Frank Vanek
Charles Hauck	Paul Vestigo
Edward Hofmann	William Walker
Elbert Jaudon	Edward Walsh
Edward Jehle	William Webster
John King	Emil Wield
Frank Kober	Herman Woebcke
Henry Koch	George Zaharakis

SINCE its inception just eleven years ago, the Phi Sigma Omega Fraternity has labored to uphold the philosophy and the ideals of its founder. It has striven to gather beneath its fold, men of kindred spirit and similar belief. It has endeavored to provide a place where these men can meet each other, where they can discuss and decide questions relating to themselves, in a place that is homelike, pleasant, comfortable and satisfying to their needs, a place where they can study and prepare their work in peace, and where they can speak above a stage whisper when thrashing out a problem. In short, Phi Sigma Omega has tried to give its members a house that is as near to a home as is humanly possible.

In this it has succeeded. The Phi Sigma Omega Fraternity House at Thirty-nine East Seventh Street, though not luxurious in the strict sense of the word, is luxurious in friendship and companionship, which only comfortable surroundings and similar interests can inspire. Here, in a pleasant atmosphere surrounded by photographs of the Cooper Union and its Faculty, and by banners and insignia of men who were once here, who did the same things, who had the same troubles but somehow managed to succeed, its members enjoy a pleasant, homey atmosphere, wherein they can study or rest.

The social side of life is extremely important to a student attending college at night. His days are occupied by his position, whatever it may be, and his evenings are filled with his classes. His week-ends are fully employed in performing the necessary tasks which were assigned him by his professors during the week. Thus, having no time to see his friends nor to seek amusement, the student stores up a tremendous amount of energy which must be dissipated in some manner. The PSO Fraternity endeavors to supply this need by conducting various social functions during the school year.

The first and most important affair of the year is of course the Fall Formal Dance. This gala fete is usually held on the Saturday following Thanksgiving. This year's dance was held at Beekman Tower, in the uptown East-side section of Manhattan. The great majority of the fraters attended en masse. The graduate brothers of Alpha Chapter came out of their domestic domiciles and dark dens dragging their mates or girl friends and in full battle cry, swarmed down upon the Beekman Tower in the most gratifying numbers in recent years.

The next event on the social program was the New Year's Eve Party. This is also an annual event but is held in the Fraternity



Some people always will read over another's shoulder. They will never learn!



At 6:45 the brothers get together on reports they expect to hand in a few minutes later.

House. The affair this year was most successful, especially so, in a social way. The House was crowded to the doors. The only trouble was that the brothers were too many and their friends only added to the general confusion and gayety. However, when everybody finally departed some time in the New Year's Day, it was unanimously agreed that the party was a complete success.

The innovation inaugurated this year by the members had been discussed and considered for several long years. That was the P.S.O. Coffee Pot. This year the Master Council brought the matter to a head, overrode all objections, both silly and otherwise,

and made definite plans. The result of those was the appointment of a committee of management to conduct the coffee house. This committee was to serve coffee and buns to the members after a meeting and every night after classes. A nominal sum was charged each member who participated in the coffee and bun debacles. So far, no serious cases of indigestion have developed, but a few prolific coffee-and-bun eaters have been uncovered. So much did they manage to cram down their gullets that the committee was forced to raise their fees in order that the other less fortunate men could get their fill too. The P.S.O. Coffee Pot is still in function, and will, because of its great popularity, continue for a long time.

This year also witnessed the birth of a very effective and very simple ceremony. In the brief span of its eleven years existence, Phi Sigma Omega has seen several of its members answer the last call. There was no definite, prescribed manner in which to honor the memory of these departed. It was suggested that some simple ceremony be arranged for this purpose. After a serious discussion,

The moral to be drawn from this story is: Never try to study on a sofa—especially if it's a soft one.



this rite was finally accepted: "Wherefore, three or more fraternity brothers being gathered, there shall be at the stroke of midnight a specified period devoted to the memory of departed brothers, during which all the lights shall be extinguished and absolute silence shall be maintained." This simple but effective ceremony has thus far served to keep alive and to honor the memory of those brothers who have departed this life.

The event next in chronological order was the Tri-Chapter Banquet. This ban-

quet is a joint affair of three chapters, Alpha of Cooper Union, Beta of Newark College of Engineering, and Gamma of New York University. This dinner is conducted chiefly to bring together the members of these three metropolitan chapters so that they may become better acquainted with each other. The 1937 Tri-Chapter Banquet was held at the Hotel Dixie. The three chapters turned out in extraordinary numbers and the banquet hall was jammed with hungry men. After the feast concluded, each chapter provided about a half-hour entertainment by its members, instead of the usual after dinner speeches. The Alpha Chapter staged the best show in years.

The Annual Banquet and Installation of Officers is strictly an Alpha Chapter function. This Banquet is tendered to members inducted during the year. After the dinner which is always par excellence, the officers chosen for the coming school year are sworn into their respective offices by a charter member of the Phi Sigma Omega Fraternity. This function concludes the yearly activities of the Alpha Chapter. During the summer vacation, the House, which has suffered many ravages over the year, undergoes a thorough cleaning and general overhauling.



While the dummy relaxes, the bridge fans concentrate on a close hand of contract bridge.

The Frat always has those problems which take the concerted action of the leaders.





ALPHA MU SIGMA

FOUNDED 1914 AT THE COOPER UNION

FRATRES IN COLLEGIO

Julius Agin
Jack Berger
David Horowitz
Arthur Kahlenberg
Bernard Last
Nathan S. Lipowitz
Ralph Maslow
Harry A. Roistacher
Charles Samberg
Murray Schwartz
Emanuel Silverman
Herman H. Weinstein

CHAPTERS

Alpha	The Cooper Union
Beta	College of the City of New York
Gamma	Polytechnic Institute of Brooklyn
Delta	Massachusetts Institute of Technology
Epsilon	Columbia University
Zeta	New York University
Eta	Harvard University
Theta	Bellevue Medical College
Iota	Yale University
Lambda	University of Pennsylvania
Mu	University of Maryland
Nu	University of Virginia
Omicron	University of Southern California
Xi	Union College
Pi	Long Island University
Tau	George Washington University
Sigma	Lewis Institute of Technology
Kappa	Boston University
Alumni	New York City
Alumni	Boston

ALUMNI ASSOCIATION

THE Cooper Union Alumni Association is only an infant. It is just one year old, having made its first howl at a meeting which accepted the new constitution on May 11, 1936. Of course, there were alumni organizations in Cooper before that, and, if history is any guide, there will be others after it. But for all this, it is a lusty baby. It has accomplished things that were sorely needed for a long time.

The ultimate purpose of the Alumni Association is to be the point of contact between the members of a class, and between the School and its graduates. To serve this purpose the Cooper Union Alumni Association has set up its organization. Since the members of a class in any particular course are close to each other, having spent at least four years together in School, they are made the unit of the organization. All the classes in one course make up a Chapter. The General Science, the Chemical, the Electrical, and the Architecture Chapters have been especially active in the past.

The first Cooper Union Alumni Association, composed of graduates of the Engineering course, was the first alumni organization. Later, the Architectural Drawing course formed an alumni organization and as other courses were added, new associations were formed. Just prior to the World War, the Alumni Association of Cooper Union was formed, to coordinate the activities of these organizations. Finally, after two years of work by the Reorganization Committee, the present form of alumni organization was adopted.

Many projects have been undertaken by the new Association. Probably, to the alumni, the most important was the establishment of a publication. Because of its modest size, and make-up, it has been called simply the "Cooper Union Alumni News." It attempts, in its few pages, to give the news of the School, undergraduate and alumni activity, news of the individual alumni, notes about them as well as short biographies of outstanding members. Also of interest, is the sad news of the death of a class-mate. A regular monthly publication has been needed and looked for by the alumni for a long time. The new organization has at last been able to start one and publish it for the whole year.

Another needed undertaking was the institution of an employment bureau. The Night School students are all looking for jobs, or, at least, for better ones. They then have contact with another



Standing: A. Wohlgenuth, P. Anthes. Seated: H. Williams, Pres., and C. Weaver.

activity of the Alumni Association—its employment bureau. The Association took over that bureau at the beginning of the school year in an effort to coordinate employment activities. They had previously been in charge of the various department heads. Now the Association is trying to coordinate all of the employment activities in the School and to make a planned and aggressive effort to place students and especially recent graduates.

Another activity that the alumni sponsor is the celebration of Founder's Day, February 12th, and the honoring of Peter Cooper on Memorial Day. This year Founder's Day was celebrated by a dinner-dance at the Roger-Smith on 41st St. and Madison Avenue. It was a marked success in every way. Due to the illness of Mr. Gano Dunn, the President of Cooper Union, Mr. Henry D. Williams, President of the Cooper Union Alumni Association, gave the principal address.

Professor Henry C. Enders was toastmaster. Many prominent alumni attended, including Mr. John Glassford, Ch.E. '01, who came to New York from Baltimore especially to celebrate Founder's Day. The dancing after the dinner was enjoyed by young and old alike. Before the evening was over, everyone agreed that he had had a good time.

Besides the evening celebration, Founder's Day was commemorated by placing a wreath on the statue of Peter Cooper in the Hall of Fame at N.Y.U. on Washington Heights, in the morning. Mr. Williams gave a short address on that occasion. In the afternoon Mr. J. Chas. Riedel, G.S. '98, gave a short address at the statue of Peter Cooper in Cooper Square. On Memorial Day, a wreath is placed on Peter Cooper's grave in Greenwood Cemetery in Brooklyn.

This year, the Association is managed by a group of particularly capable officers. The President, as mentioned above, is Henry D. Williams, G.S. '85, a prominent patent attorney, who has been very active in alumni affairs for many years. He is a past President of the General Science Alumni Association, now the General Science Chapter—and past President of the Alumni Federation of Cooper Union. The first Vice-president is Philip F. Brueck, G.S. '33, a popular man at school and in his fraternity, a hard worker, and a good mixer. In the second Vice-president, the Chemical Department is represented by Christian Weaver, Chem. '03, teacher of Organic Chemistry at Cooper for 25 years. The Secretary is Adolph J. Wohlgemuth, E.E. '31, who was Chairman of the Reorganization Committee that drew up the constitution for the new unified Association. The Treasurer is Philip S. Anthes, Arch. '33.

who has been Chairman of the Founder's Day Committee for several years, is an intrepid worker in anything he undertakes.

The Chapters have restricted their activities this year in order to give the new Association the full spotlight. An Art Chapter is forming, and an Oratory and Debate Chapter is under consideration.

Further activities are being planned. The first, which is already being worked on, is the formation of study groups in subjects of interest to the alumni. Visions of an enlarged publication and of a more complete and thorough employment service are being seen, but restricted membership and lack of funds has confined the activities for the present.

A live, active, interested alumni organization is being built up. All the cooperation that can be had is needed. By interesting the alumni in the activities and needs of Cooper Union, a graduate who is in a position to do so will help the school and supply the many things wanted so badly. Those who are students now will soon be alumni; they are the ones who must continue the alumni work; and make it grow so that they may, in some measure, at least, repay the debt to Peter Cooper and at the same time, benefit themselves by continuing the friendships that were built up during the years at Cooper Union. With the support and active cooperation of all those graduating this year, the speedy realization of the visions of this deserving group and the continuance of its good work seems assured.

The Alumni who celebrated Founder's Day on February 11, at the Roger Smith Restaurant.



PATRONS OF THE 1937 CABLE

GEORGE F. BATEMAN
W. E. BOSSERT
R. C. BRUMFIELD
GANO DUNN
HENRY C. ENDERS
DOMINICK J. ERMILIO
A. J. FAIRBURN
FRED. E. FOSS
THOMAS GARVEY
WALTER S. GIFFORD
BARKLIE HENRY
EDWARD LARKIN
K. E. LOFGREN
N. MOLNAR
J. P. MORGAN
JOHN H. MORIARTY
PHILIP NUDD
LAWRENCE PEREZ
W. J. PICKETT
AUSTIN PURVES
PERCY PYNE
H. F. ROEMMELE
ELIHU ROOT, JR.
PAUL A. B. SAHM
ESMOND SHAW
FRANK H. TALLMAN
JOSEPH J. TANZOLA
ALLEN TARR
HARRY E. WARREN
HENRY D. WILLIAMS
J. P. J. WILLIAMS
ALBERT S. WRIGHT
C. H. YOUNG



THE ROSTER

A

Abler, Morton.....1675 Walton Avenue, Bronx, N. Y.
 Abrams, W. D.....Rockaway Beach, L. I.
 Accino, D. J.....703 S. Hermitage Ave., Chicago, Ill.
 Ackert, G. F.....21-65 28 St., Astoria L. I.
 Adams, Fred.....1233 Broadway, Brooklyn, N. Y.
 Adams, Howard.....65 Wegman Pkwy., Jersey C., N. J.
 Adams, J. C.....30-46 48 St., L. I. C., N. Y.
 Adler, S.....192 Dwight St., Jersey City, N. J.
 Agin, Julius.....846 Fulton St., Brooklyn, N. Y.
 Agin, Robert.....683 Park Ave., Union City, N. J.
 Ahneman, Leonard J.....2821 Sedgewick Ave., N. Y. C.
 Albanese, Michael.....31 Park Pl., Passaic, N. J.
 Albanos, Christopher.....Valley Cottage, N. Y.
 Albert, Arthur.....236 Lewis Ave., Brooklyn, N. Y.
 Alderman, H.....126 Park Ave., Rutherford, N. J.
 Alessi, Stephen.....356 E. 13 St., N. Y. C.
 Alexander, John.....2751 Hone Ave., Bronx, N. Y.
 Allaire, J. M.....2265 - 84 St., Brooklyn, N. Y.
 Allen, E. P.....55 Brower Ave., Rockville Center, L. I.
 Allen, Ruth C.....144-19 - 35 Ave., Flushing, L. I.
 Allison, H. W.....304 N. 5 St., Harrison, N. Y.
 Alpert, Jack.....501 Lefferts Ave., Brooklyn, N. Y.
 Ames, Joseph.....36 Riggs Pl., S. Orange, N. J.
 Ancona, Anthony.....100 W. 105 St., N. Y. C.
 Anders, Roland.....133-48 - 117 St., Ozone Pk., L. I.
 Anderson, E. V.....Rockville Center, L. I.
 Anderson, Marshall.....1307 Ave. L, Brooklyn, N. Y.
 Antaki, V. N.....86-57 - 105 St., Richmond Hill, L. I.
 Aquino, Michael T.....5810 - 11 Ave., Brooklyn, N. Y.
 Aronow, Saul.....992 Eastern Pkwy., Brooklyn, N. Y.
 Ashkanazi, Harry.....763 Fox St., Bronx, N. Y.
 Ast, Paul F.....446 E. 85 St., N. Y. C.
 Athey, M. J.....4741 - 39 Pl., L. I. C., N. Y.
 Atkins, Edna.....8 Le Roy Pl., Ridgewood, N. J.
 Atkins, Irving.....325 Beach 28 St., Far Rockaway, L. I.
 Axelrod, Isidore.....250 Hart St., Brooklyn, N. Y.

B

Bachstetter, L. S.....985 Brooklyn Ave., Brooklyn, N. Y.
 Backman, Austr.....136 W. 15 St., N. Y. C.
 Badami, J. V.....315 Pulaski St., Brooklyn, N. Y.
 Bailey, Elsa B.....1 E. 93 St., N. Y. C.
 Bahrenburg, H.....155 Monroe St., Brooklyn, N. Y.
 Balk, Leon J.....2440 E. 24 St., Brooklyn, N. Y.
 Banker, Abraham.....109 St. Marks Pl., N. Y. C.
 Barbarow, Ruth.....72 Mill St., Morristown, N. J.
 Barker, J. G.....66-31 Fresh Pond Rd., Ridgewood, L. I.
 Barnard, Renée.....Sea Cliff, Long Island
 Barrows, C. S.....1730 Harrison Ave., Bronx, N. Y.
 Bartelheim, G. J.....431 E. 81 St., N. Y. C.
 Bartlett, W.....287 Palmer Rd., Yonkers, N. Y.
 Bateman, J. F.....320 Fairmount Ave., Jersey City, N. J.

Bass, W. L.....384 Fenn St., Pittsfield, Mass.
 Bassoff, W.....1304 Stebbins Ave., Bronx, N. Y.
 Baumstein, W. J.....3451 Giles Pl., Bronx, N. Y.
 Bayuk, Bernard.....29 Sycamore Ave., Plainfield, N. J.
 Becker, Leonard.....480 Junius St., Brooklyn, N. Y.
 Behrens, Julius G.....304 W. 111 St., N. Y. C.
 Belikowich, John.....171 E. 2 St., N. Y. C.
 Bendett, R. M.....3 Gravel St., Mystic, Conn.
 Berger, Jack.....1501 W. 6 St., N. Y. C.
 Berger, Isidore.....1122 Kelly St., Bronx, N. Y.
 Berkowitz, H.....8705 Bay Pkwy., Brooklyn, N. Y.
 Berman, Elliot.....1517 Walton Ave., Bronx, N. Y.
 Berman, Saul.....723 E. 48 St., Brooklyn, N. Y.
 Bernstein, Charles.....2023 Davidson Ave., Bronx, N. Y.
 Bernstein, Sol.....715 Van Sicklen Ave., B'klyn, N. Y.
 Bildziukiewicz, E.....372 Riverdale Ave., B'klyn, N. Y.
 Bindman, S. K.....2170 Walton Ave., Bronx, N. Y.
 Birnbaum, A.....170 Peshine Ave., Newark, N. J.
 Black, H. H.....114-03 128 St., S. Ozone Pk., L. I.
 Blam, Leslie L.....1565 Thieriot Ave., Bronx, N. Y.
 Bland, Barbara.....109-13 209 St., Queens Village, L. I.
 Blasius, George.....108 Milton St., Brooklyn, N. Y.
 Blenk, Henry J.....88-29 78 Ave., Glendale, L. I.
 Bleier, Winifred.....2392 Valentine Ave., Bronx, N. Y.
 Blitz, Charles.....526 Tinton Ave., Bronx, N. Y.
 Block, H. M.....188 Sumner Ave., Brooklyn, N. Y.
 Block, Sidney.....25 Chauncey St., Waterbury, Conn.
 Bloom, Adelaide.....192 Neptune Ave., Brooklyn, N. Y.
 Blumberg, W.....3711 98 St., Corona, L. I., N. Y.
 Bobay, Paul.....180 Riverdale Ave., Yonkers, N. Y.
 Bobkowski, Vincent.....29 E. 7 St., N. Y. C.
 Boothby, Otis L.....357 9 St., Brooklyn, N. Y.
 Boudon, Placer.....1225 71 St., Brooklyn, N. Y.
 Bouma, Hessel.....52 Summer St., Passaic, N. J.
 Boyne, F. J.....28 Lexington St., Rockville Center, L. I.
 Brady, F.....444 E. 87 St., N. Y. C.
 Brady, James V.....3980 Provost Ave., Bronx, N. Y.
 Bratt, John.....141 Atlantic Ave., Hackensack, N. J.
 Braun, W. G.....1125 Appelgate Ave., Elizabeth, N. J.
 Braunstein, J.....238 Neptune Ave., Brooklyn, N. Y.
 Brehm, H.....33 Monticello Ave., Jersey City, N. J.
 Breitman, Milton.....574 Tinton Ave., Bronx, N. Y.
 Bricchi, H.....518 Paterson Plank Rd., Jersey City, N. J.
 Brickfield, Edmund.....2812 Ave. Z, Brooklyn, N. Y.
 Briglia, E. V.....1145 Woodycrest Ave., Bronx, N. Y.
 Broad, Walter.....25 E. 45 St., Bayonne, N. J.
 Brooks, Gregory E.....466 13 St., Brooklyn, N. Y.
 Brown, Gregory F.....Hotel Lucerne, N. Y. C.
 Brown, Martin M.....1840 E. 14 St., Brooklyn, N. Y.
 Brown, Robert.....220 W. 13 St., N. Y. C.
 Browning, John R.....Littleton, North Carolina
 Brushansky, Roy.....81 Blake Ave., Brooklyn, N. Y.
 Bryer, Jacob.....1847 Bathgate Ave., Bronx, N. Y.
 Buchholz, Walter.....2251 E. 23 St., Brooklyn, N. Y.

Budde, Albert A. 2548 Matthews Ave., Bronx, N. Y.
 Budden, E. L. 109-03 86 Ave., Richmond Hill, N. Y.
 Bulger, J. 116-04 Rockaway Blvd., Ozone Pk., N. Y.
 Burch, Robert 1302 Rosedale Ave., Bronx, N. Y.
 Burger, Edward H. 241 68 St., Brooklyn, N. Y.
 Burke, Arthur W. 9 W. 95 St., N. Y. C.

C

Caccamo, Charles 231 E. 13 St., N. Y. C.
 Cahill, Mary 106 Ball St., Port Jervis, N. Y.
 Caligiuri, Edward 1533 E. 23 St., Brooklyn, N. Y.
 Cammer, M. 1701 Nelson Ave., Bronx, N. Y.
 Campbell, Margaret M. 14 E. 16 St., N. Y. C.
 Capodice, Alfonse 2525 Paulding Ave., Bronx, N. Y.
 Carmellino, S. J. 367 5 St., Brooklyn, N. Y.
 Carroll, Joel 366 Chester St., Brooklyn, N. Y.
 Cashman, A. F. 233 Ave. A, Bayonne, N. J.
 Castellano, F. J. 196 Clinton Ave., Brooklyn, N. Y.
 Castelucci, Frederick River Road, Belmar, N. J.
 Center, Bernard M. 572 Bristol St., Brooklyn, N. Y.
 Chaber, Oscar 1184 Walton Ave., Bronx, N. Y.
 Chadwick, N. H. 8 Lincoln Ave., Highland Pk., N. J.
 Champe, J. E. 1720 Second Ave., N. Y. C.
 Charney, W. Seagate, Brooklyn, N. Y.
 Chen, Alwin B. 605 W. 139 St., N. Y. C.
 Chernoff, Max 587 Alabama Ave., Brooklyn, N. Y.
 Chibka, Charles 2504 Bronx Pk. E., N. Y. C.
 Chorney, Harold 216 Kingston Ave., Brooklyn, N. Y.
 Chichester, K. J. 2805 43 St., Astoria, L. I., N. Y.
 Christie, H. M. 65 Horton Ave., New Rochelle, N. Y.
 Chu, Henry 15 Mott St., N. Y. C.
 Chudleigh, V. 49 Prospect St., E. Orange, N. J.
 Chudow, Julius 12 Meserole St., Brooklyn, N. Y.
 Cichoski, Casimir V. 748 Hudson Blvd., Bayonne, N. J.
 Clair, Seymour 1035 53 St., Brooklyn, N. Y.
 Cohen, Beatrice 764 E. 17 St., Brooklyn, N. Y.
 Cohen, Eve 4701 15 Ave., Brooklyn, N. Y.
 Cohen, Ira B. 422 St. Paul's Pl., Bronx, N. Y.
 Cohen, Jacob 2063 74 St., Brooklyn, N. Y.
 Cohen, Ruth 477 E. Second St., Brooklyn, N. Y.
 Cole, William 862 Columbus Ave., N. Y. C.
 Colen, I. 273 Ave. P, Brooklyn, N. Y.
 Constantinos, C. 209 Dyckman St., N. Y. C.
 Cook, E. 241 Passaic Ave., Hasbrouck Hgts., N. J.
 Cook, L. H. 238 Bay Ridge Pkway., Brooklyn, N. Y.
 Cooper, Harvey E. 94 E. 18 St., Paterson, N. J.
 Cooper, Mae 265 Stratford Rd., Brooklyn, N. Y.
 Corin, Gerald 14 Clinton St., N. Y. C.
 Corrado, Stephen 205 E. 44 St., N. Y. C.
 Corrigan, Joseph 83 Linden Ave., Jersey City, N. J.
 Corsinus, F. N. 52 Coakley Ave., Harrison, N. Y.
 Costa, Raymond L. 780 W. 178 St., N. Y. C.
 Cozine, Harold 369 3 St., Brooklyn, N. Y.
 Craw, Jerry 304 Park Ave., E. Orange, N. J.

Crespi, Daniel 1284 Stebbins Ave., Bronx, N. Y.
 Cummins, M. 59 N. Bergen Pl., Freeport, L. I., N. Y.
 Czander, J. 565 Palisade Ave., Jersey City, N. J.
 Czapek, Lydia Totowa Road, Paterson, N. J.

D

Danko, Stanley 214 E. 10 St., N. Y. C.
 Danziger, Ralph 1556 Union St., Brooklyn, N. Y.
 Darmstadt, W. 195 George St., New Brunswick, N. J.
 Darrow, William 1866 60 St., Brooklyn, N. Y.
 Davidson, G. 1589 Ocean Ave., Brooklyn, N. Y.
 Davison, Betty Lee 431 W. 121 St., N. Y. C.
 Daubaras, Edward 134 Himrod St., Brooklyn, N. Y.
 Decker, H. 199 Paterson Tpke., N. Bergen, N. J.
 Deed, D. W. 301 S. Bway., S. Nyack, N. Y.
 DeFabritus, Albert 238 E. 14 St., N. Y. C.
 Dege, A. 29 Van Nostrand Ave., Jersey City, N. J.
 Delassalle, Francis W. Deer Park, L. I.
 Del Barco, Luis M. 105 King Ave., Yonkers, N. Y.
 Del Papa, Frank 2336 64 St., Brooklyn, N. Y.
 Demarest, Edgar 154 State St., Hackensack, N. J.
 Demasi, Rocco 189 Harbor Rd., Staten Island, N. Y.
 Dembosky, Stanley 9 E. 36 St., Bayonne, N. J.
 Denega, Alex 255 Bergen St., Brooklyn, N. Y.
 De Pierre, Vincent 950 41 St., Brooklyn, N. Y.
 De Ritter, Elmer 123 N. 3d St., Paterson, N. J.
 De Sanctis, A. 2945 Bainbridge Ave., Bronx, N. Y.
 De Simone, D. 33 Bradford St., Harrison, N. Y.
 Deutsch, Sidney 1138 Union Ave., Bronx, N. Y.
 Diamond, Isadore 555 Powell St., N. Y. C.
 Diener, Morris 10 Ayr St., Newark, N. J.
 Dietz, Fred 146 Newton St., Brooklyn, N. Y.
 Dingenthal, J. 1265 Walton Ave., Bronx, N. Y.
 Dischuck, John J. 4 Irving Place, N. Y. C.
 Dixon, Samuel C. 651 W. 188 St., N. Y. C.
 Dmitroff, George A. 510 W. 135 St., N. Y. C.
 Docke, John A. 127 Lake St., Jersey City, N. J.
 Dolgow, M. 236 E. 5 St., N. Y. C.
 Donato, Louis N. 2280 82 St., Brooklyn, N. Y.
 Donnelly, Edna 450 W. 128 St., N. Y. C.
 Donnelly, Harold 216 Jane St., Weehawken, N. J.
 Dooner, J. L. 1825 E. 22 St., Brooklyn, N. Y.
 Dorfman, Abraham L. 72 E. 96 St., Brooklyn, N. Y.
 Dorfman, H. A. 164 Second St., Mineola, L. I., N. Y.
 Dorfsman, Louis 586 E. 179 St., Bronx, N. Y.
 Downing, Michael 527 W. 151 St., N. Y. C.
 Downs, R. N. 155-31 116 Rd., Jamaica, L. I., N. Y.
 Drake, Margaret 1447 Troy Ave., Brooklyn, N. Y.
 Dravesky, Andrew, J. 76 Ave. C, Bayonne, N. J.
 Drechsler, Fred P. 233 Greene Ave., Brooklyn, N. Y.
 Drescher, Harold L. 372 Elton St., Brooklyn, N. Y.
 Drimer, David 1124 Ward Ave., Bronx, N. Y.
 Dubac, Constantino 8317 5 Ave., Brooklyn, N. Y.
 Duch, Stephen 532 Bergen St., Newark, N. J.

Dulberg, Samuel S.....251 E. 45 St., N.Y.C.
 Dunay, Paul P.....423 S. 18 St., Newark, N.J.
 Dunkelman, L.....142 Graham Ave., Paterson, N.J.
 Dunn, Albert L.....8 Betts Pl., E. Norwalk, Conn.
 Dunefsky, Marcus.....995 E. 173 St., Bronx, N.Y.
 Dury, Andre.....11 Prospect Pl., Hillsdale, N.J.
 Dusch, John.....13 Gouverneur Pl., Bronx, N.Y.
 Dworkowitz, A.....219 Brightwater Ct., B'klyn, N.Y.

E

Early, Lawrence.....420 E. 141 St., N.Y.C.
 Early, Walter S.....420 E. 141 St., N.Y.C.
 Edelman, A. J.....218 Watkins St., Brooklyn, N.Y.
 Edman, Walter.....813 71 St., Brooklyn, N.Y.
 Egan, H.....47 Adrian Ave., Kingsbridge, Bronx, N.Y.
 Egbert, R. B.....139-28 87 Ave., Jamaica, L.I., N.Y.
 Eisman, Alvord.....600 W. 111 St., N.Y.C.
 Eisner, Bernard.....168 Newark Ave., Jersey City, N.J.
 Eiwen, Charles.....60 E. 179 St., N.Y.C.
 Ellis, H.....104 Terrace View Ave., N.Y.C.
 Elovitz, Joseph.....322 Main St., Hackensack, N.J.
 Engle, Victor.....144 Riverdale Ave., Yonkers, N.Y.
 Epstein, Milton.....415A Kosciuszko St., Brooklyn, N.Y.
 Eron, T.....102 Kensington Terrace, Passaic, N.J.
 Everman, V. F.....391 Bradford St., Brooklyn, N.Y.
 Ezell, E. J.....299 Fairmount Ave., Jersey City, N.J.

F

Falkin, Murray.....1609 Ocean Ave., Brooklyn, N.Y.
 Farmer, Jack.....819 53 St., Brooklyn, N.Y.
 Fazakas, Donelda.....Harrington Park, N.J.
 Feder, Harold M.....865 E. 172 St., Bronx, N.Y.
 Fegan, Joseph.....1260 Havemeyer Ave., Bronx, N.Y.
 Feingold, W.....7719 101 Ave., Ozone Park, L.I.
 Feldman, Kenneth.....517 E. 25 St., Paterson, N.J.
 Feldman, Samuel.....178 Hart St., Brooklyn, N.Y.
 Fensterer, H.....86-18 123 St., Richmond Hill, L.I.
 Ferrigni, George P.....44 E. 208 St., Bronx, N.Y.
 Fiala, John J.....410 E. 84 St., N.Y.C.
 Fine, Norman.....1623 44 St., Brooklyn, N.Y.
 Firstenberg, T.....375 E. Moshulu Pkwy., Bronx, N.Y.
 Fischer, John W.....398 6 St., Brooklyn, N.Y.
 Fischl, Elsie J.....2261 62 St., Brooklyn, N.Y.
 Fitzgerald, G. V.....699 Chauncey St., Brooklyn, N.Y.
 Fitzpatrick, W.....92-35 51 Ave., Elmhurst, N.Y.
 Flar, Henry.....105 Brown Pl., Jersey City, N.J.
 Fleischman, L.....15 Woodlawn Ave., Jersey City, N.J.
 Foodim, Charles.....1091 Newport St., Brooklyn, N.Y.
 Fonst, C. W.....3 E. Alpine St., Newark, N.J.
 Fox, George.....1837 Ocean Ave., Brooklyn, N.Y.
 Fox, Sanford.....6309 Bay Parkway, Brooklyn, N.Y.
 Frank, B. H.....189 Kosciuszko St., Brooklyn, N.Y.
 Franz, H. W.....9024 144 Pl., Jamaica, L.I.

Frankenstein, G.....438 Hendrix St., Brooklyn, N.Y.
 Frapani, Joseph A.....610 E. 182 St., Bronx, N.Y.
 Frascella, T. J.....779 Livonia Ave., Brooklyn, N.Y.
 Frederickson, C. A.....Brooklyn, N.Y.
 Freidman, Irving.....756 Fox St., Bronx, N.Y.
 Freidman, Joseph.....4807 8 Ave., Brooklyn, N.Y.
 Friedberg, Isaiah.....1665 Weeks Ave., Bronx, N.Y.
 Friedman, J. S.....72 Benkard Ave., Newburgh, N.Y.
 Frisch, Oscar.....3403 14 Ave., Brooklyn, N.Y.
 Fristensky, Charles.....282 Shaler Blvd., Ridgefield, N.J.
 Fromm, C. W.....1416 Jefferson Ave., Brooklyn, N.Y.
 Fuchs, Jacob.....763 E. 152 St., Bronx, N.Y.

G

Gaillard, Hamilton F.....Valley Cottage, N.Y.
 Gallery, John W.....643 88 St., Brooklyn, N.Y.
 Garber, Milton.....2077 Dean St., Brooklyn, N.Y.
 Garfinkel, Sidney.....875 E. 179 St., N.Y.C.
 Gasser, Edward.....31-37 35 St., Astoria, L.I., N.Y.
 Gebrian, George.....175 W. 48 St., Bayonne, N.J.
 Geier, George.....37 Carmel Ave., Staten Island, N.Y.
 Gentile, Walter.....19-03 147 St., Whitestone, L.I.
 Gerbore, Alexander E.....58 W. 90 St., N.Y.C.
 Gerland, Maurice.....111-34 124 St., Ozone Park, L.I.
 Gertler, James.....2715 Webb Ave., N.Y.C.
 Gilbert, T. N.....16 Jefferson Ave., Maplewood, N.J.
 Gildersleeve, R.....142-12 Roosevelt Ave., Flushing, L.I.
 Gilman, Samuel.....1980 Unionport Rd., Bronx, N.Y.
 Glaser, A. J.....1062 Westside Ave., Jersey City, N.J.
 Glass, Sherman.....264 Ryerson St., Brooklyn, N.Y.
 Glatt, Robert.....518 20th Ave., Paterson, N.J.
 Gleitsmann, Joseph.....Wyckoff, N.J.
 Glickman, C. G.....3720 Maple Ave., Brooklyn, N.Y.
 Gluck, Frederick.....288 Main St., E. Orange, N.J.
 Goerner, Emil H.....163 Valley Blvd., Woodridge, N.J.
 Gold, Sidney.....181 Hudson Ave., Brooklyn, N.Y.
 Goldberg, Julius.....559 W. 191 St., N.Y.C.
 Goldberg, Numoe.....789 Belmont Ave., Brooklyn, N.Y.
 Goldberg, Robert.....2858 W. 23 St., Brooklyn, N.Y.
 Golden, Phil.....1214 Wheeler Ave., Bronx, N.Y.
 Goldman, Jonas.....599 Watkins St., Brooklyn, N.Y.
 Goldman, Samuel.....1837 W. 6 St., Brooklyn, N.Y.
 Goldsmith, Aaron.....923 E. 180 St., N.Y.C.
 Goldstein, C.....5815 Snyder Ave., Brooklyn, N.Y.
 Goldstein, I. Leo.....891 Tiffany St., Bronx, N.Y.
 Goldstein, Jacob.....364 St. Ann's Ave., Bronx, N.Y.
 Goldstein, Seymour.....170 Chester St., Brooklyn, N.Y.
 Goltsos, George.....34-06 Bell Ave., Bayside, N.Y.
 Goode, Harry.....1368 Sheridan Ave., Bronx, N.Y.
 Goodman, Jerry.....41 Lott Ave., Brooklyn, N.Y.
 Gordon, Isidore.....250 E. Gunhill Rd., Bronx, N.Y.
 Gordon, Louis.....377 Ocean Pkwy., Brooklyn, N.Y.
 Gordon, Max.....2014 61 St., Brooklyn, N.Y.
 Gorecki, Erica H.....30-80 32 St., Astoria, N.Y.

Gorlach, V. J.....4427 Monticello Ave., Bronx, N.Y.
 Gormezano, Isaac.....1915 Southern Blvd., Bronx, N.Y.
 Gottfried, A.....Richmond Hill, L. I.
 Gould, E. N.....901 S. Cecil St., Philadelphia, Penn.
 Gouffine, Edith.....102-19 216 St., Bellaire, L. I., N.Y.
 Gouzoulis, Aristides.....764 E. 161 St., Bronx, N.Y.
 Grady, Doris.....31 Pilling St., B'klyn, N.Y.
 Grebert, Charles.....37 E. 60 St., N.Y.C.
 Green, Giles G.....144-22 87 Ave., Jamaica, N.Y.
 Green, Gus.....1080 Anderson Ave., N.Y.C.
 Green, W. F.....2108 E. 7 St., Brooklyn, N.Y.
 Greenberg, J. H.....7119 19 Ave., Brooklyn, N.Y.
 Greenberg, Sidney.....56 E. 184 St., Bronx, N.Y.
 Greene, Charles.....60-11 Madison St., Brooklyn, N.Y.
 Greene, Horace.....669 Ralph Ave., Brooklyn, N.Y.
 Greenfeld, Charles.....1694 54 St., Brooklyn, N.Y.
 Grimm, Nancy.....117 Overlook Ave., Great Neck, L. I.
 Grohse, Edward W.....71-15 69 St., Glendale, L. I.
 Gross, Samuel.....326 E. 58 St., N.Y.C.
 Grossman, J.....2028 Valentine Ave., Bronx, N.Y.
 Grossner, Nathan.....203 E. 175 St., N.Y.C.
 Gruol, John.....8048 89 Ave., Woodhaven, L. I., N.Y.
 Guerci, Carl.....554 W. 53 St., N.Y.C.
 Guerci, Harold B.....554 W. 53 St., N.Y.C.
 Gummersall, John.....144 12 Ave., Sea Cliff, L. I., N.Y.
 Gumbrecht, J. O.....Queens Village, L. I.
 Gundlach, R.....1640 New York Ave., Bklyn., N.Y.
 Guralnick, Irving M.....1800 Bryant Ave., Bronx, N.Y.
 Gurfein, Joseph.....279 Ocean Ave., Brooklyn, N.Y.
 Gutterman, Isobel.....1118 E. 9 St., Brooklyn, N.Y.
 Guzzardi, Sam.....1831 55 St., Brooklyn, N.Y.

H

Haas, John.....138-54 102 Ave., Jamaica, N.Y.
 Haberman, A. Milton.....680 E. 235 St., N.Y.C.
 Haldi, Victor.....4149 54 St., Woodside, L. I., N.Y.
 Hall, John E.....412 21 Ave., Paterson, N.J.
 Halliday, Keith C.....518 W. 111 St., N.Y.C.
 Hamel, F. C., Jr.....220 Hancock St., Brooklyn, N.Y.
 Hammarstrom, E.....408 Godwin Ave., Ridgewood, N.J.
 Hanft, John.....1301 Hoe Ave., Bronx, N.Y.
 Hansen, Hans.....86 Meadow Rd., N. Brunswick, N.J.
 Haratonik, W.....34-56 30 St., Long Island City, N.Y.
 Harrington, John.....1769 E. 14 St., Brooklyn, N.Y.
 Harris, Warren.....295 Thatford Ave., Brooklyn, N.Y.
 Hartman, Chas. E.....411 40 St., Brooklyn, N.Y.
 Hashmall, Frank.....1141 E. 165 St., Bronx, N.Y.
 Hashmall, Morris.....1141 E. 165 St., Bronx, N.Y.
 Hasselbach, A. T.....631 88 St., Brooklyn, N.Y.
 Heere, P. N.....1855 Hudson Blvd., Jersey City, N.J.
 Heller, M.....8507 112 St., Richmond Hill, N.Y.
 Hendrickson, Madelene.....1952 Anthony Ave., N.Y.C.
 Hepp, George C.....246 Eldert St., Brooklyn, N.Y.
 Herr, Fred J.....68 Hill St., Woodridge, N.J.

Herman, Jacob.....699 Georgia Ave., Brooklyn, N.Y.
 Herzog, Howard.....255 W. 88 St., N.Y.C.
 Herzog, Robert.....1163 President St., Brooklyn, N.Y.
 Hessing, H. J.....2134 Vyse Ave., Bronx, N.Y.
 Higgins, Wilmar D.....1787 Amsterdam Ave., N.Y.C.
 Hilbert, H. S.....Richmond Hill, L. I.
 Holcomb, R. C.....155 Washington St., Freeport, L. I.
 Hoeffler, Virginia.....1655 Townsend Ave., Bronx, N.Y.
 Holdsworth, W.....2210 Harmon St., Brooklyn, N.Y.
 Holland, C. Whitney.....137 Gray St., Bogota, N.J.
 Hollander, William.....331 W. 24 St., N.Y.C.
 Holms, Arthur.....69 Frederick Ave., Clifton, N.J.
 Homburger, Edward.....1130 E. 42 St., Brooklyn, N.Y.
 Horn, Nathan.....1425 Macombs Rd., Bronx, N.Y.
 Hornickel, H. C.....2274 Ellis Ave., Bronx, N.Y.
 Horowitz, Bernard.....1723 W. 5 St., Brooklyn, N.Y.
 Horowitz, David.....233 E. 21 St., N.Y.C.
 Horsting, Philip.....149 Norwood Ave., Bronx, N.Y.
 Horvath, Ludlow.....624 W. 139 St., N.Y.C.
 Huchital, Eugene.....597 Rogers Ave., Brooklyn, N.Y.
 Hughes, Richard S.....641 Ave. E., Bayonne, N.J.
 Hutchins, Melvin R.....3300 Bailey Ave., Bronx, N.Y.
 Hysa, Ann.....22-49 97 St., E. Elmhurst, L. I., N.Y.

I

Ianelli, E. A.....86 Webster Ave., Harrison, N.Y.
 Imagna, Peter.....310 E. 105 St., N.Y.C.
 Ipsen, S. J.....749 Richmond Rd., Richmond, N.Y.
 Isaacs, Jacqueline.....29 Cedars Rd., Caldwell, N.J.

J

Jacobson, E.....1342 Franklin Ave., Bronx, N.Y.
 Jaffe, Elias.....2164 Prospect Ave., Bronx, N.Y.
 Jahrling, R. J.....221 Hancock St., Brooklyn, N.Y.
 Janczuk, Edw.....3353 Campbell Dr., Bronx, N.Y.
 Janeway, Juliana.....149 E. 86 St., N.Y.C.
 Janis, Peter.....1898 Harrison Ave., Bronx, N.Y.
 Janssen, W. F.....678 Academy St., N.Y.C.
 Jehle, Edward.....60-30 Madison St., Ridgewood, L. I.
 Jensky, Jacob.....1305 Seneca Ave., Bronx, N.Y.
 Johnsen, H.....4 Van Brunt St., Eltingville, S. I., N.Y.
 Johnson, Moe.....960 E. 163 St., N.Y.C.
 Joseph, William L.....1728 43 St., Brooklyn, N.Y.
 Junge, William.....6303 Eliot Ave., Maspeth, L. I., N.Y.

K

Kaecher, Daniel.....167 Sands St., Brooklyn, N.Y.
 Kahn, Alfred.....132-48 114 St., Ozone Park, N.Y.
 Kalbreiter, Muriel.....40-06 Union St., Flushing, L. I.
 Kaldor, Peter R.....594 Ocean Ave., Brooklyn, N.Y.
 Kalfaian, E. H.....381 Palisade Ave., Union City, N.J.
 Kalifon, Samuel M.....750 E. 175 St., Bronx, N.Y.
 Kandak, John A.....603 Rickford Ter., Linden, N.J.
 Kandiner, H.....239 E. Kingsbridge Rd., Bronx, N.Y.

Kane, Bertram J.....416 68 St., Brooklyn, N. Y.
 Kaplan, Gerald.....209 President St., Passaic, N. J.
 Kaplan, M. J.....470 Prospect Ave., Brooklyn, N. Y.
 Kassman, I.....111-01 91 Ave., Richmond Hill, L. I.
 Kassner, W.....1082 Tinton Ave., Brooklyn, N. Y.
 Katz, Abraham.....645 Vermont St., Brooklyn, N. Y.
 Katz, Herbert L.....174 Bay 29 St., Brooklyn, N. Y.
 Katz, Ruth D.....1105 College Ave., Bronx, N. Y.
 Kaufman, Charles R.....225 Decatur St., Bklyn., N. Y.
 Kaufman, Paul.....1206 55 St., Brooklyn, N. Y.
 Kazarian, Ruben.....346 E. 21 St., N. Y. C.
 Keaveny, Thomas.....448 W. 57 St., N. Y. C.
 Keene, Jack.....1348 Ocean Ave., Brooklyn, N. Y.
 Kelemen, Frank.....15 E. 109 St., N. Y. C.
 Kennedy, John R.....1140 Bergen St., Brooklyn, N. Y.
 Kent, G. R.....206 E. Harriet Ave., Palisades Pk., N. J.
 Kerstein, Joseph D.....1556 38 St., Brooklyn, N. Y.
 Kettleman, E. Van B.....6169 56 St., Maspeth, N. Y.
 King, John.....509 E. 34 St., Brooklyn, N. Y.
 Kirby, Cornelius.....137-28 97 Ave., Jamaica, N. Y.
 Kirishjian, Vahe.....6738 6 Ave., Brooklyn, N. Y.
 Kirschen, F.....1881 Grand Concourse, Bronx, N. Y.
 Kitty, Fred.....231 E. 13 St., N. Y. C.
 Klate, Seymour.....181 W. Tremont Ave., Bronx, N. Y.
 Kleban, Bernard.....5101 13 Ave., Brooklyn, N. Y.
 Klein, David J.....40 Featherbed Lane, N. Y. C.
 Klein, Shirley.....265 Stratford Rd., Brooklyn, N. Y.
 Klein, William.....284 E. 172 St., Bronx, N. Y.
 Kline, G. F.....College Point, L. I.
 Kniazuk, Michael.....1108 Anna St., Elizabeth, N. J.
 Knofle, W.....65 E. Seaman Ave., Freeport, L. I.
 Kober, Frank.....1063 E. 92 St., Brooklyn, N. Y.
 Koch, H. J.....254 E. 156 St., N. Y. C.
 Kochman, H. A.....593 Bradford St., Brooklyn, N. Y.
 Koeniger, E. P.....9134 Pk. Lane S., Woodhaven, L. I.
 Kogut, Leon.....1680 Prospect Pl., Brooklyn, N. Y.
 Kohn, Julius F.....154 E. 3 St., N. Y. C.
 Kolesnikoff, P.....98-15 Corona Ave., Corona, L. I.
 Koliner, Ralph.....57 W. 84 St., N. Y. C.
 Koloff, Bernard.....19 Howe Ave., Passaic, N. J.
 Kondrajan, E.....3144 35 St., Long Island City, N. Y.
 Konigsberg, Irwin.....967 48 St., Brooklyn, N. Y.
 Koosman, J. G.....140 Trimble Ave., Clifton, N. J.
 Kopton, Kay.....149 So. 4 St., Brooklyn, N. Y.
 Kordak, John A.....503 Richford Terrace, Linden, N. J.
 Koretsky, Sanford.....545 W. 158 St., N. Y. C.
 Kornfeld, Neva.....1154 President St., Brooklyn, N. Y.
 Koroshetz, W. T.....1711 Green Ave., Ridgewood, L. I.
 Kossaic, Sidney.....765 Jennings St., Brooklyn, N. Y.
 Kosti, W.....102-19 Roosevelt Ave., Corona, L. I.
 Kotzen, M.....156 Hamilton Ave., New Rochelle, N. Y.
 Kovaleski, Sigmund.....495 E. 43 St., Brooklyn, N. Y.
 Kozmik, Fred.....228 Metropolitan Ave., Brooklyn, N. Y.
 Krajewski, Milton.....70 Essex St., Jersey City, N. J.

Kramer, Jack.....28 Porter Ave., Brooklyn, N. Y.
 Krasnoff, Albert.....319 Peshine Ave., Newark, N. J.
 Kraut, T.....238 Monticello Ave., Jersey City, N. J.
 Kremer, C. J.....78-32 79 St., Glendale, L. I., N. Y.
 Kricker, Ralph.....961 St. Nicholas Ave., N. Y. C.
 Krukiel, Edw. C.....225 Sanford Ave., Harrison, N. Y.
 Krulowitz, G.....663 Powell St., Brooklyn, N. Y.
 Kubista, Henry.....417 E. 87 St., N. Y. C.
 Kuchinsky, Abraham.....313 E. 94 St., Brooklyn, N. Y.
 Kulansky, Harry.....676 Watkins St., Brooklyn, N. Y.
 Kulewitsch, Teddy.....1783 Marmion Ave., N. Y. C.
 Kulkman, H.....8617 96 St., Woodhaven, L. I., N. Y.
 Kummer, Oscar.....1560 Broadway, Brooklyn, N. Y.
 Kunysz, Paul.....718 Main St., Paterson, N. J.
 Kurland, David.....70 Campfield St., Irvington, N. J.
 Kusevich, Marko A.....183 Henry St., N. Y. C.
 Kushins, Paul R.....1020 Tiffany St., Bronx, N. Y.
 Kushner, Sylvia.....681 Howard Ave., Brooklyn, N. Y.
 Kutzelman, E. G.....1531 Westchester Ave., Bx., N. Y.
 Kutzelman, H. J.....1531 Westchester Ave., Bx., N. Y.
 Kuzmick, Jerome.....13 Holden St., Clifton, N. J.
 Kwawer, Lester.....52 Bartlett St., Brooklyn, N. Y.

L

Laban, Robert.....594 Park Pl., Brooklyn, N. Y.
 Lacoff, Hyman.....1040 Boyant Ave., Bronx, N. Y.
 Landaw, George.....669 Bway., Paterson, N. J.
 Lang, Sheldon.....2149 E. 21 St., Brooklyn, N. Y.
 Lange, Clark.....2603 Briggs Ave., Bronx, N. Y.
 Laplaca, Michael.....835 3rd Road, Brooklyn, N. Y.
 Larkin, Joseph.....355 Cypress Ave., Brooklyn, N. Y.
 Larkin, William.....117-08 9th Ave., College Pt., N. Y.
 Lasauskas, Peter.....524 E. 119 St., N. Y. C.
 Lasco, John Angus.....201 W. 91 St., N. Y. C.
 Laske, Dorothy.....2533 Aqueduct Ave., N. Y. C.
 Lasky, Ben.....194 So. 9 St., Brooklyn, N. Y.
 Lasky, Calman.....856 Elsmere Pl., Bronx, N. Y.
 Last, Bernard.....589 Tinton Ave., N. Y. C.
 Last, I. Herbert.....589 Tinton Ave., N. Y. C.
 Latour, Francis G.....455 Liberty Ave., Jersey City, N. J.
 Laub, Louis.....710 E. 176 St., Bronx, N. Y.
 Laufer, Abraham.....1163 Sutter Ave., Brooklyn, N. Y.
 Lazzaro, Josephine.....1170 E. 18 St., N. Y. C.
 Leban, Robert.....394 Park Place, Brooklyn, N. Y.
 Lebowitz, Samuel.....1317 Franklyn Ave., Bronx, N. Y.
 Leddy, Madeline.....32-38 76 St., Jackson H'ts, N. Y.
 Leder, Chester.....326 River St., Hackensack, N. J.
 Lefebvre, Frank F.....571 W. 139 St., N. Y. C.
 Lehrer, Alex.....Stelton, N. J.
 Leib, Irwin.....189 Ocean Parkway, Brooklyn, N. Y.
 Leibin, Samuel.....573 W. 192 St., N. Y. C.
 Levada, Andrew R.....2134 Ryder St., Brooklyn, N. Y.
 Leventhal, Abe.....2173 E. 5 St., Brooklyn, N. Y.
 Levine, Lester.....1349 Grant Ave., Bronx, N. Y.

Levine, Samuel.....995 E. 173 St., Bronx, N. Y.
 Levine, Saul C.....3044 Albany Crescent, Bronx, N. Y.
 Levinson, Benjamin.....300 Riverdale Ave., B'klyn, N. Y.
 Levinson, S. E.....3105 Brighton 3rd St., B'klyn, N. Y.
 Levy, Frances Elsa.....16 Hartley Ave. Mt. Vernon, N. Y.
 Lewson, Martin.....1251 Grant Ave., Bronx, N. Y.
 Leys, Charles S.....193 Washington St., Freeport, N. Y.
 Lichtenberg, Edward.....2069 Anthony Ave., N. Y. C.
 Lichtenstein, Bernard L.....2131 77 St., Brooklyn, N. Y.
 Lieber, Joseph.....8049 88 Road, Woodhaven, N. Y.
 Lifschitz, Milton.....2402 85 St., Brooklyn, N. L.
 Linsky, Horace.....921 E. 31 St., Brooklyn, N. Y.
 Lipkowitz, A.....88-10 Liberty Ave., Ozone Pk., N. Y.
 Lipowitz, N. S.....77 W. 27 St., Bayonne, N. J.
 Lippel, Saul P.....371 S. 5 St., Brooklyn, N. Y.
 Litvin, Emanuel.....1226 St. George Ave., Linden, N. J.
 Loiacono, James N.....31 Paterson St., Kearney, N. J.
 Long, H.....31-44 95 St., Jackson Heights, L. I., N. Y.
 Lopez, Herman.....86 E. 110 St., N. Y. C.
 Lopez, Joseph Blanco.....318 W. 11 St., N. Y. C.
 Lorenz, Albert J.....260 B'way, Passaic, N. J.
 Loughlin, Bernard.....8 Davis Ave., E. Orange, N. J.
 Love, J. S.....150 Schenck Ave., Great Neck, N. Y.
 Low, Howard.....611 W. 158 St., N. Y. C.
 Lubalin, H.....307 Beach 47 St., Far Rockaway, N. Y.
 Luchun, C. V.....318 7 Ave., Brooklyn, N. Y.
 Luhrs, Chas, H.....979 Grace Terrace, Teaneck, N. J.
 Lusckus, V.....523 Commonwealth Ave., Bronx, N. Y.
 Luther, Herbert G.....631 Hancock St., Brooklyn, N. Y.

M

Maas, Robert.....301 Idaho St., Passaic, N. J.
 Machlin, Irving.....4402 Snyder Ave., Brooklyn, N. Y.
 MacNair, Donald.....1215 Seneca Ave., N. Y. C.
 Mahadeen, J.....325 West Side Ave., Jersey C., N. J.
 Mahoney, John.....670 61 St., Brooklyn, N. Y.
 Mahony, Daniel.....73 Hamilton Ave., Yonkers, N. Y.
 Majlinger, Anthony.....31-63 35 St., Astoria, L. I., N. Y.
 Malchenson, Martin.....1767 Weeks Ave., Bronx, N. Y.
 Mantell, C.....42 Suburban Ave., Stamford, Conn.
 Marchetti, J. P.....216 Stanhope St., Brooklyn, N. Y.
 Margolin, Abe.....356 Madison St., N. Y. C.
 Margolis, Irving.....1488 Vyse Ave., Bronx, N. Y.
 Marino, Lewis C.....315 Clinton St., Brooklyn, N. Y.
 Markowski, P. J.....221 Eckford St., Brooklyn, N. Y.
 Marra, Peter S.....300 E. 169 St., Bronx, N. Y.
 Marsteller, Daniel M.
 131 Ingraham Lane, New Hyde Park, N. Y.
 Marten, Camille G.....118 Park Ave., Rutherford, N. J.
 Martone, Arthur.....96 Van Houten Ave., Passaic, N. J.
 Masiello, Orazio.....317 E. 124 St., N. Y. C.
 Maslow, Ralph.....2063 77 St., Brooklyn, N. Y.
 Mason, Stuart.....384 E. 193 St., Bronx, N. Y.
 Mathisen, Erling.....111-17 126 St., S. Ozone Pk., N. Y.

Matiuk, A.....664 Hopkinson Ave., Brooklyn, N. Y.
 Maturi, Vincent F.....500 W. 42 St., N. Y. C.
 Matzick, Arthur.....1123 4 Ave., N. Bergen, N. J.
 Maurin, Joseph.....70-12 67 St., Queens, L. I., N. Y.
 Maxon, John.....20 N. Broadway, White Plains, N. Y.
 McAleer, James J.....3321 Seymour Ave., Bronx, N. Y.
 McCaffrey, Jane
 98 Chatterton Pkwy., White Plains, N. Y.
 McCain, Janet.....216 Leonia Ave., Leonia, N. J.
 McCrackan, E.....81-04 95 Ave., Ozone Pk., N. Y.
 McGee, Francis.....132 Broadway, Elizabeth, N. J.
 McGinnis, Frank.....2516 Poplar St., Bronx, N. Y.
 McLaren, Bernard.....229 Main St., Tuckahoe, N. Y.
 McLaughlin, George E.
 9345 Vanderveer St., Queens Village, L. I., N. Y.
 McShea, W.....33-21 89 St., Jackson Heights, L. I.
 Medaisky, Ralph.....36 Post St., Yonkers, N. Y.
 Mendel, Samuel.....147 Bay 25 St., Brooklyn, N. Y.
 Meng, Jack.....6147 Linden St., Ridgewood, L. I.
 Mercer, Marjorie.....Mill Lane, Bronx, N. Y.
 Meringer, William J.....64 W. 192 St., N. Y. C.
 Merlin, A. G.....1445 St. Johns Pl., Brooklyn, N. Y.
 Messerschmidt, Henry.....14 St. Nicholas Pl., N. Y.
 Messinger, Harry.....1155 Morrison Ave., Bronx, N. Y.
 Meyer, Edna.....8811 Colonial Rd., Brooklyn, N. Y.
 Meyer, Henry.....14 Erroll Pl., New Rochelle, N. Y.
 Meyerson, B.....2007 Foster Ave., Brooklyn, N. Y.
 Mickoloichuk, Sam.....248 E. Houston St., N. Y. C.
 Middleton, John F.....381 E. 160 St., Bronx, N. Y.
 Mihalik, John J.....52 E. Clifton Ave., Clifton, N. J.
 Mihalik, W. B.....52 E. Clifton Ave., Clifton, N. J.
 Miller, Abraham.....79-32 69 Ave., Middle Village, L. I.
 Miller, Alice.....314 W. 19 St., N. Y. C.
 Miller, C.....6655 Fresh Pond Rd., Ridgewood, L. I.
 Miller, Leon.....2800 Bronx Pk. E., Bronx, N. Y.
 Miller, Morton.....261 Havemeyer St., Brooklyn, N. Y.
 Miller, Pincus.....104 Taft Ave., New Brighton, S. I.
 Miller, Robert G.....24 Bay 31 St., Brooklyn, N. Y.
 Millman, Irving.....1433 47 St., Brooklyn, N. Y.
 Mission, George W.....570 E. 137 St., Bronx, N. Y.
 Mistrion, Carl.....124 E. 118 St., N. Y. C.
 Mitchell, Herbert I.....871 Kelly St., Bronx, N. Y.
 Mittheuber, Max.....123 Central Ave., Bogota, N. J.
 Moderacki, Albin.....610 46 St., Brooklyn, N. Y.
 Moller, Erik S.....598 E. 73 St., Brooklyn, N. Y.
 Moore, William D.....424 Third Ave., N. Y. C.
 Moore, William S.....15 July Walk, Long Beach, L. I.
 Morano, George.....38-75 11 St., Long Island C., N. Y.
 Moritz, D.....142-02 Farmers Ave., Springfield, L. I.
 Morrow, Gerald.....61-51 Gates Ave., Ridgewood, L. I.
 Moss, Arthur.....1967 Marmion Ave., Brooklyn, N. Y.
 Mueller, H.....1244 Brooklyn Ave., Brooklyn, N. Y.
 Mueller, Ruth.....434 E. 52 St., N. Y. C.

Muhlmeister, Daniel.....19 Birch St., Mt. View, N. J.
 Mulford, Kit.....3658 Waldo Ave., N. Y. C.
 Mulligan, Robert.....107-35 165 St., Jamaica, L. I.
 Mullio, Norbert V.....2146 58 St., Brooklyn, N. Y.
 Munson, Theresa.....555 Throop Ave., Brooklyn, N. Y.

N

Nachemov, Leonard.....901 Beck St., Bronx, N. Y.
 Nagelberg, H.....498 Pennsylvania Ave., B'klyn, N. Y.
 Nagoshiner, Leon.....1685 Bryant Ave., Bronx, N. Y.
 Naidich, Morris.....3451 Giles Pl., Bronx, N. Y.
 Nash, A. E. Jr.....36 Central Pkwy., Mt. Vernon, N. Y.
 Natelson, F.....840 Lafayette Ave., Brooklyn, N. Y.
 Neary, William V.....227 W. 15 St., N. Y. C.
 Nefedov, W.....600 Van Buren St., Brooklyn, N. Y.
 Neilis, N. J.....1450 Taylor Ave., Bronx, N. Y.
 Nelson, Clatus J.....91-05 89 Ave., Woodhaven, L. I.
 Nelson, C. R.....201 Tyson Ave., Floral Pk., N. Y.
 Neshin, Irving.....136 W. 28 St., Bayonne, N. J.
 Nesti, A. J.....31 Murray St., Richmond Valley, S. I.
 Nestor, James.....2831 W. 2 St., Brooklyn, N. Y.
 Neuman, K. W.....37 Clinton Pl., Mt. Vernon, N. Y.
 Newman, Anna D.....14 E. 16 St., N. Y. C.
 Nicholson, John.....1080 2 Ave., N. Y. C.
 Niedhammer, Herbert.....136 31 St., Woodcliff, N. J.
 Nistico, Frank.....23 Bedell Ave., Tottenville, S. I.
 Noozer, Lazarus.....2810 Olinville Ave., Bronx, N. Y.

O

O'Brien, M. F.....1770 Mahan Ave., Bronx, N. Y.
 Ockun, Samuel.....140 Newport St., Brooklyn, N. Y.
 O'Conner, Grace.....541 E. 78 St., N. Y. C.
 O'Donnell, R.....1017 Putnam Ave., Brooklyn, N. Y.
 O'Hanian, Grace.....330 Third Ave., N. Y. C.
 O'Hara, Bernard.....365 W. 23 St., N. Y. C.
 Ohrenstein, Samuel.....299 Hewes St., Brooklyn, N. Y.
 O'Keefe, W. J.....2108 Davidson Ave., Bronx, N. Y.
 Okun, Daniel A.....1837 E. 17 St., Brooklyn, N. Y.
 Olcott, Bernard.....138-14 97 Ave., Jamaica, L. I.
 Oldham, Richard D.....10 Monroe St., N. Y. C.
 Olinsky, Herman.....17 Burr Ave., Hempstead, L. I.
 Olson, C., Jr.....92-52 215 St., Queens Village, L. I.
 Openden, Charles.....1537 Fulton Ave., Bronx, N. Y.
 Orchard, Louise.....17 Masterton Rd., Bronxville, N. Y.
 Orgel, Julius.....88 Taylor St., Brooklyn, N. Y.
 Osman, Robert.....114 Fenimore St., Brooklyn, N. Y.
 Owen, Edward.....525 Madison St., N. Y. C.
 Owen, Lucy.....11 W. 10 St., N. Y. C.
 Owendoff, Robert.....474 72 St., Brooklyn, N. Y.
 Ozvath, D.....White Plains, N. Y.

P

Pagdin, W.....70 Brinkerhoff St., Jersey City, N. J.
 Parsekian, H.....781 Broadway, W. New York, N. J.
 Pateman, H. B.....24 Willry St., Woodbridge, N. J.

Patten, Marjorie.....193 Cypress St., Fall River, Mass.
 Patton, Eileen Clare.....28-27 211 St., Bayside, N. Y.
 Patrone, Eugene F.....35 4 Pl., Brooklyn, N. Y.
 Paulsen, A.....520 Washington Ave., Brooklyn, N. Y.
 Pavelka, Stephen.....309 E. 75 St., N. Y. C.
 Pavlacka, Charles J.....1807 Crotona Ave., N. Y. C.
 Pearlman, Isaac.....647 Greene Ave., Brooklyn, N. Y.
 Pearlstein, Joseph.....2227 83 St., Brooklyn, N. Y.
 Pedolsky, Milton.....Poughkeepsie, N. Y.
 Peirano, John.....1684 W. 10 St., Brooklyn, N. Y.
 Peizer, Eugene.....1107 Lebanon St., N. Y. C.
 Perez, Henry T.....54 Sagamore Rd., Bronxville, N. Y.
 Perlman, Joseph.....811 E. 178 St., Bronx, N. Y.
 Pesce, William.....5914 39 Ave., Woodside, L. I.
 Petrucelly, V.....2250 McDonald Ave., Brooklyn, N. Y.
 Pettit, James R.....97-30 108 St., Richmond Hill, L. I.
 Pfann, W.....75-48 Juniper Val. Rd., Middle Village, L. I.
 Pflug, Werner.....101 31 St., Woodcliff, N. J.
 Phillips, G. M.....145 Columbia Ave., N. Bergen, N. J.
 Phillips, James C.....36 E. 7 St., N. Y. C.
 Piazzani, Lavinia.....768 39 St., N. Bergen, N. J.
 Picone, Lawrence.....618 17 St., Union City, N. J.
 Pierce, George C.....789 St. Johns Pl., Brooklyn, N. Y.
 Pierrard, Adrian.....1197 Clove Rd., Sunnyside, S. I.
 Pietila, Lawrence.....924 Hampton St., Linden, N. J.
 Pink, F. Albert.....45-56 168 St., Flushing, L. I.
 Pinkus, Elliot J.....415 E. 54 St., Brooklyn, N. Y.
 Pinto, Charles.....2235 First Ave., N. Y. C.
 Pinzka, Charles F.....146 Duer St., N. Plainfield, N. J.
 Plaut, Isidore.....1700 Bryant Ave., Bronx, N. Y.
 Plotkin, Isidore.....2709 Ave. U, Brooklyn, N. Y.
 Plotkin, Oscar.....965 53 St., Brooklyn, N. Y.
 Pohle, Fred.....26 Kossuth Pl., Brooklyn, N. Y.
 Popofsky, Abraham J.....1877 Daly Ave., Bronx, N. Y.
 Port, Julius.....301 Wyona St., Brooklyn, N. Y.
 Posavetz, John.....1151 Elder Ave., N. Y. C.
 Post, Chester.....3225 Corlear Ave., Bronx, N. Y.
 Poveromo, Peter.....807 Elton Ave., N. Y. C.
 Powers, Miriam.....1789 Popham Ave., Bronx, N. Y.
 Pracny, Anne.....8920 184 Pl., Hollis, L. I.
 Pratt, Doris.....328 W. 96 St., N. Y. C.
 Pratt, George W.....8532 88 St., Woodhaven, L. I.
 Prucha, H. E.....28-04 33 Ave., Astoria, L. I., N. Y.
 Puchir, Michael.....35 Ave. A, N. Y. C.
 Purr, Michael.....2993 Zulette Ave., Bronx, N. Y.

Q

Quart, Irving.....155 Water St., Newburgh, N. Y.
 Quattlander, F. P.....Box 164, Center Reach, N. Y.
 Quinn, Edward W.....4722 11 Ave., Brooklyn, N. Y.
 Quinn, George P.....410 W. 57 St., N. Y. C.
 Quirin, Frederick.....2007 12 Ave., Altoona, Pa.
 Quist, A. H., Jr.....1400 Flatbush Ave., Brooklyn, N. Y.

R

Rabinowitz, Ann.....298 Sackman St., Brooklyn, N. Y.
 Rabinowitz, N.....3320 Mermaid Ave., Brooklyn, N. Y.
 Rabinowitz, S.....386 Miller Ave., Brooklyn, N. Y.
 Racz, Armand.....210 E. 31 St., N. Y. C.
 Racz, William G.....241 E. 81 St., N. Y. C.
 Radzka, Benjamin.....618 E. 5th St., N. Y. C.
 Rahikka, R.....109 Stuyvesant Ave., Jersey City, N. J.
 Randmetz, Theodore.....3751 18 Ave., Brooklyn, N. Y.
 Rankel, R. A.....302 Linde St., Ridgewood, N. Y.
 Rankin, Ruth.....35 Orange St., Stamford, Conn.
 Rankow, Charlotte.....55 St. Marks Place, N. Y. C.
 Ranson, N. L.....154-11 12 Rd., Beechurst, L. I., N. Y.
 Rappaport, Irving.....409 E. 4th St., Brooklyn, N. Y.
 Rapport, Maurice.....138 Eames Pl., Bronx, N. Y.
 Rathje, E.....22 Garden St., Ridgefield Pk., N. J.
 Reale, Vincent J.....272 E. Gunhill Rd., N. Y. C.
 Reck, Charles W.....2300 Bronx Pk. E., Bronx, N. Y.
 Reff, Israel.....805 E. Tremont Ave., Bronx, N. Y.
 Reh, Marion.....2256 Walton Ave., N. Y. C.
 Reich, Sidney.....1756 Ocean Ave., Brooklyn, N. Y.
 Rennolds, Philip.....3805 Lyme Ave., Brooklyn, N. Y.
 Richmond, N.....135 Quincy St., Passaic, N. J.
 Riehl, H.....65 Montrose Ave., So. Orange, N. J.
 Riehl, Theodore.....3065 Grand Concourse, Bronx, N. Y.
 Rivero, M. R.....104-11 125 St., Richmond Hill, L. I.
 Robbins, Harry.....2121 Westbury Ct., Brooklyn, N. Y.
 Robinson, Dale C.....419 E. 5th St., N. Y. C.
 Rochlin, Nathan.....909 E. 178 St., N. Y. C.
 Rodriguez, J. M.....3830 29 St., Long Island City, N. Y.
 Rodwell, L. A.....47-17 39 St., Long Island City, N. Y.
 Rogat, Stanley.....1132 E. 15 St., Brooklyn, N. Y.
 Rogge, R. H.....20 Grand Ave., Ridgefield Pk., N. J.
 Rohe, Robert K.....44 Buchanan Pl., Bronx, N. Y.
 Roistacher, H. A.....7005 19 Ave., Brooklyn, N. Y.
 Rollner, Saul.....1694 Topping Ave., Bronx, N. Y.
 Rolly, G.....424 Beach 129 St., Rockaway Beach, N. Y.
 Rosen, Abraham.....8 Harrison Ave., Brooklyn, N. Y.
 Rosen, Saul B.....67 Moore Ave., Mt. Kisco, N. Y.
 Rosenberg, C. R.....2700 Bronx Pk. E., Bronx, N. Y.
 Rosenberg, H. H.....5104 Ft. Hamilton Pkway, Bklyn.
 Rosenblum, Harold.....2132 Daly Ave., Bronx, N. Y.
 Rosenthal, D.....172 Pulaski St., Brooklyn, N. Y.
 Rosovsky, Simon.....2112 Ave. Y, Brooklyn, N. Y.
 Roszkowski, E.....147-47 Ferndale Ave., Jamaica, L. I.
 Roth, F. E.....147-47 Ferndale Ave. West N. Y., N. J.
 Rothe, Karl.....2039 Webster Ave., N. Y.
 Rothmayer, Jules.....47-13 43 St., Woodside, N. Y.
 Rotkowitz, John.....70 Vavet St., Brooklyn, N. Y.
 Rowley, L. H.....85 E. 1st St., So. Cedar City, Utah
 Rozene, Melvin.....56 Liberty, Bridgeport, Conn.
 Rubin, Helen.....181 W. Tremont Ave., Bronx, N. Y.
 Rubinoff, S.....New Brunswick Ave., Perth Amboy, N. J.

Rudat, Lina.....409 Stanhope St., Brooklyn, N. Y.
 Ruslander, I.....1792 Washington Ave., Bronx, N. Y.
 Russ, Daniel.....775 Fox St., N. Y. C.
 Russo, Albert V.....2025 E. 9th St., Brooklyn, N. Y.

S

Sabo, Irving.....916 Southern Blvd., Bronx, N. Y.
 Sachs, M. L.....3726 Nautilus Ave., Brooklyn, N. Y.
 Sack, Shirley.....145-07 150 St., S. Ozone Pk., L. I.
 Salit, Leo J.....692 E. 142 St., Bronx, N. Y.
 Salmon, Royes.....444 3 St., Brooklyn, N. Y.
 Samberg, C.....731 Hegeman Ave., Brooklyn, N. Y.
 Sanders, Jerry.....57 Florence St., Floral Pk., N. Y.
 Sanders, Milton.....1100 Grove St., Irvington, N. J.
 Sarant, A.....23 Colony St., W. Hempstead, L. I.
 Sarch, S.....2995 Ocean Pkway, Brooklyn, N. Y.
 Sario, M.....155-12 Sanford Ave., Flushing, N. Y.
 Savacchio, Antonio N.....447 E. 116 St., N. Y. C.
 Schaefer, Jerome.....110 Bay 38 St., Brooklyn, N. Y.
 Schaffer, Mischa.....965 Sutter Ave., Brooklyn, N. Y.
 Schaffner, Charles.....61-41 56 St., Maspeth, L. I.
 Schaller, H. J.....34-47 80 St., Jackson Hts., N. Y.
 Schallis, A. H.....630 Bergen Ave., Jersey City, N. J.
 Schaum, Peter.....68-12 62 St., Glendale, L. I.
 Scheibel, Edward G.....71-58 68 Pl., Glendale, L. I.
 Schein, Herbert.....106-12 107 Ave., Queens, N. Y.
 Scheiner, A.....2025 New York Ave., Brooklyn, N. Y.
 Scheller, Karl.....174 Peshine Ave., Newark, N. J.
 Schiappa, A.....63-57 Forest Ave., Ridgewood, N. J.
 Schiehsler, George A.....179 32 St., Weehawken, N. J.
 Schieren, Jacob.....310 E. 4 St., N. Y. C.
 Schilder, Jacob D.....215 E. 54 St., Brooklyn, N. Y.
 Schilder, Milton L.....415 Rodney St., Brooklyn, N. Y.
 Schiller, Jacob D.....215 E. 54 St., Brooklyn, N. Y.
 Schlackman, Herman.....1502 Vyse Ave., N. Y. C.
 Shmitz, Fred.....60-02 Madison St., Brooklyn, N. Y.
 Schmookler, M.....1491 Westchester Ave., Bronx, N. Y.
 Schmutzler, A. F.....153-25 41 Ave., Flushing, L. I.
 Schnall, Jerome.....2133 Daly Ave., N. Y. C.
 Schoen, D.....621 Van Cortlandt Pk. Av., Yonkers, N. Y.
 Schulman, S. V.....258 Schenectady Ave., Bklyn, N. Y.
 Schultz, Vernon.....92-08 25 Ave., Jackson Hts., L. I.
 Schulz, Joseph.....309 Elm Ave., Hackensack, N. J.
 Schumacker, R.....162-20 Shelton Ave., Jamaica, N. Y.
 Schumann, Leo I.....4715A 50 Ave., Woodside, L. I.
 Schwartz, J. H.....109-01 Lefferts Ave., Rich. Hill, L. I.
 Schwartz, Joe I.....1955 Concourse, Bronx, N. Y.
 Schwartz, R.....13 Kenmore Rd., Valley Stream, L. I.
 Schwartz, Ruben.....2038 75 St., Brooklyn, N. Y.
 Schweisguth, Jules.....61-12 158 St., Flushing, L. I.
 Scott, Alexander G. 1025 Hoyt Ave., Ridgefield, N. J.
 Scott, Allison.....145-28 Bayside Ave., Flushing, L. I.
 Seabrooke, Georgette.....854 Elmore Pl., Bronx, N. Y.
 Seckler, Morris.....333 S. 3rd St., Brooklyn, N. Y.

Sedat, G. W. 288 Linden St., Brooklyn, N. Y.
 Seguda, J. A. 16 Pratt Ave., Mt. Vernon, N. Y.
 Seiden, Irving 1345 43 St., Brooklyn, N. Y.
 Seifried, Paul E. New City, N. Y.
 Seigel, Leslie 510 69 St., Brooklyn, N. Y.
 Selliken, Norma 175 68 St., Brooklyn, N. Y.
 Sellnow, Donald E. 145-54 106 Ave., Jamaica, N. Y.
 Selman, Jerome H. 100 W. 47 St., Bayonne, N. J.
 Serveson, Edwin H. Whippany, N. J.
 Shalita, Martin 111 E. 51 St., Brooklyn, N. Y.
 Shapiro, Julius S. 1876 Pitkin Ave., Brooklyn, N. Y.
 Shapiro, L. D. 883 Jefferson Ave., Brooklyn, N. Y.
 Sherman, Robert 43 W. 93 St., N. Y. C.
 Shillito, J. C. 315 Bay Ridge Ave., Bklyn, N. Y.
 Shillman, Florence 4010 Saxon Ave., Bronx, N. Y.
 Shiskon, Alec 343 Cator Ave., Jersey City, N. J.
 Shmulevitz, Bernard 2250 86 St., Brooklyn, N. Y.
 Shneyer, Elias 201 S. 2 St., Brooklyn, N. Y.
 Shrifte, Miriam 300 W. 108 St., N. Y. C.
 Shyinsky, Harry A. 545 Powell St., Brooklyn, N. Y.
 Sichel, Eugene E. 1307 E. 34 St., Brooklyn, N. Y.
 Siegel, Lawrence 1341 Findlay Ave., Bronx, N. Y.
 Siegel, Morris 1541 41 St., Brooklyn, N. Y.
 Siegel, O. 122 So. Highland Ave., Ossining, N. Y.
 Sielke, Alan 73 Hurlbut St., Westwood, N. J.
 Siesholtz, H. W. 142 Goldsmith Ave. Newark, N. J.
 Sigman, H. I. 129 Goerck St., N. Y. C.
 Sigman, Sam 129 Goerck St., N. Y. C.
 Silverman, Emanuel 1156 Liberty Ave., N. Y.
 Silverstone, D. 182-24 87 Dr., Jamaica, N.Y.
 Simachewich, Paul 1214 Goden Ave., N. Y. C.
 Simeone, Ralph 548 Clinton St., Brooklyn, N. Y.
 Simon, Sol 752 E. Tremont Ave., Bronx, N. Y.
 Simonelli, J. 184 Knickerbocker Ave., Paterson, N. J.
 Singer, Arthur 326 Audubon Ave., N. Y. C.
 Singer, Dorothy J. 52 E. 91 St., N. Y. C.
 Siroiis, Bendit J. 263 Orchard St., Elizabeth, N. J.
 Sjogren, Frederick E. 110 E. 176 St., Bronx, N. Y.
 Skiba, John 28-28 29 St., Astoria, L. I.
 Skorski, Aleons 932 Kelly St., Bronx, N. Y.
 Skrek, Frank 56 Paulson Ave., Ridgefield Pk., N. J.
 Sloan, Kenneth 66 Elmwood Ter., Irvington, N. J.
 Slonim, Norman 3409 14 Ave., Brooklyn, N. Y.
 Slotkin, Meyer 642 Fox St., Bronx, N. Y.
 Slovak, Edgar 426 E. 82 St., N. Y. C.
 Slutsky, Morris 1421 35 St., Brooklyn, N. Y.
 Smeltz, T. A. 42-66 Phlox Pl., Flushing, L. I.
 Smith, A. 4708 43 Ave., Long Island City, N. Y.
 Smith, Arthur 500 Lexington Ave., Brooklyn, N. Y.
 Smith, E. 15 Van Blarcon St., Midland Pk., N. J.
 Smith, George D. 49 Grove St., N. Y. C.
 Smith, Lawrence 2-4 Nasswalk, Brooklyn, N. Y.
 Smolinsky, Frank 725 E. 5 St., Brooklyn, N. Y.
 Sobel, Bernard 1766 Park Pl., Brooklyn, N. Y.

Socher, Helen 54 W. 174 St., Bronx, N. Y.
 Solomon, Max 99 Clinton St., N. Y. C.
 Somson, A. S. 1789 Davidson Ave., Bronx, N. Y.
 Sonberg, H. A. 175 Brighton 10 St., Brooklyn, N. Y.
 Soos, Lawrence 123 E. 106 St., N. Y. C.
 Sorensen, Charles 8423 14 Ave., Brooklyn, N. Y.
 Sorrells, Willie P. 3108 107 St., Corona, N.Y.
 Spector, H. L. 790 McDonald Ave., Brooklyn, N. Y.
 Spielman, J. W. 11 Press St., So. Floral Pk., N. Y.
 Spindler, Joseph 127 Palmetto St., Brooklyn, N. Y.
 Spiselman, L. 1424 E. 7 St., Brooklyn, N. Y.
 Spohn, L. 121 Lake St., E. White Plains, N. Y.
 Spool, S. 116-65 Farmers Blvd., St. Albans, N. Y.
 Springer, G. T. 67 Bethune St., N. Y. C.
 Squitieri, M. A. 783 Union St., Brooklyn, N. Y.
 Stadnitski, Robert 130 W. 166 St., Bronx, N. Y.
 Stanislausky, J. 19 Richm'd St., New Brunswick, N. Y.
 Stanwyck, Gary 11 Waverly Pl., N. Y. C.
 Stark, S. 245 Parrott Ave., Bridgeport, Conn.
 Stauss, Bernhard 487 E. 144 St., N. Y. C.
 Steck, Jean 308 2 Ave., N. Y. C.
 Stegman, Baldwin G. 178 E. 80 St., N. Y. C.
 Stegmuller, A. G. 228 Beach 79 St., Rockaway, N. Y.
 Steinberg, M. 679 Montgomery St., Brooklyn, N. Y.
 Steiniger, W. C. 1933 Marmion Ave., Bronx, N. Y.
 Stengren, J. 75 Broadway, Rockville Center, N. Y.
 Stephens, C. 128 Henry Ave., Palisades Pk., N. J.
 Stephens, W. 435 Ft. Washington Ave., N. Y. C.
 Stern, Abraham 1035 Kelly St., Bronx, N. Y.
 Stimpson, John 8754 24 Ave., Brooklyn, N. Y.
 Stone, W. 473 Bay Ridge Pkway, Brooklyn, N. Y.
 Strapka, T. 175 E. 101 St., N. Y. C.
 Strom, Al 1560 Southern Blvd., Bronx, N. Y.
 Strom, B. 5104 Clarendon Rd., Brooklyn, N. Y.
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 Sunila, Kauko E. 23 W. 98 St., N. Y. C.
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T

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U

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V

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Y

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ACKNOWLEDGEMENTS

AT this particular time, when our readers have thumbed their way through, mulled over, and perused the previous pages, the Editors deem it proper to give those added credits where credits are due. We find ourselves very conscious of little things that have added touches to the completion of our production, and some very great favors, without which we would not have been able to print our book.

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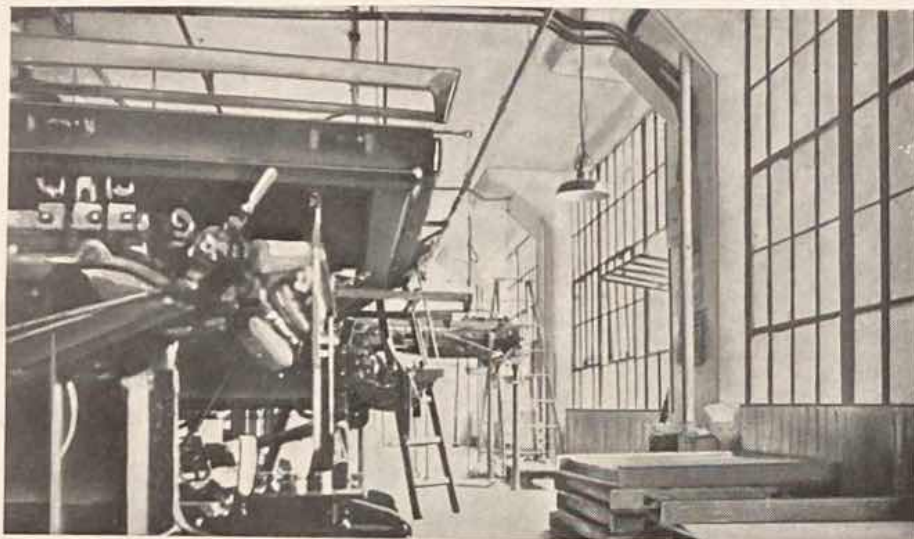
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